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THE
MARYLAND FARMER:
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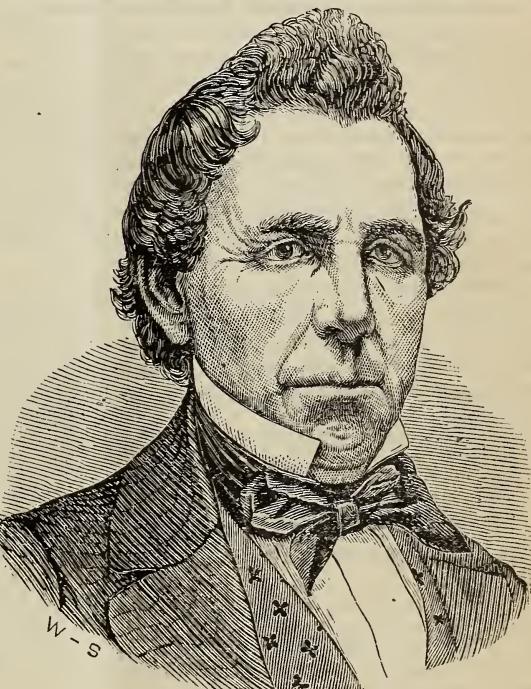
BALTIMORE, AUGUST, 1873.

No. 8.

LUTHER WHITMAN.

We deem it by no means inappropriate to present our readers with a lithographic and pen picture of a distinguished manufacturer of farm implements, he being the only brother of our proprietor of the *Maryland Farmer*. Their father, themselves and their sons have been, and are still extensively engaged in manufacturing agricultural machinery in Winthrop, Me., Baltimore and St. Louis. We are indebted for the contents of this article to the circular of that large establishment of Messrs. Whitman, sons of Luther Whitman, Esq., and to the able "Illustrated Journal of Agriculture," published in St. Louis.

There is an interest attached to the deeds of some men which far surpasses in magnitude that belonging to other names closely interwoven with the history of convulsions, revolutions, and the rise and fall of empires. Vivid imaginations have depicted and graphic pens have traced the march of conquerors in their overthrow of dynasties. Assembled multitudes shout praises of orators when stirred to the soul's depths by strains of eloquence. But enshrined and embalmed in the inner hearts of a grateful people are memories more enduring, memories that reflect imperishable renown upon lives consecrated in exploring the hidden resources of Nature, and adding to the vast storehouse of information those sciences and acquirements which elevate and promote the well-being of the human race. The improvement wrought in agriculture sustained a victorious army that must have wasted by famine to an inglorious retreat north of the Pyrenees. The genius of Franklin, Morse and Fulton combined, united the hemispheres, overcame space, diffused knowledge and accelerated civilization beyond known bounds—to these men and such as these, pioneers in dark,



obscure realms, belong mental triumphs and intellectual achievements that reflect through a vista of years, shining with increasing radiance upon succeeding generations in their onward march to a higher goal of enlightenment.

Luther Whitman, the subject of our sketch, is one of those representative men whose ingenuity has lightened the labors of the husbandman, and to whom the farmer will ever remain under lasting obligations. In the useful field of industrial inventions, his hereditary genius and his unwearied efforts have entitled him to a position in the front rank among the renowned inventors of the New World.

Mr. Ezra Whitman, father of Luther, was engaged in manufacturing machinery at Bridgewater, Mass., and here, March 10th, 1802, Luther Whitman was born. At the age of fourteen, Luther

Whitman and his father removed to Winthrop, Me., and engaging in manufacture there, perfected one of the first Separators and Cleaners ever offered to the public. In 1835 he first produced an upright drill lathe with self-feed, the use of which has become more extensive as experience has demonstrated its merits.

His conception of the endless Chain Horse Power in 1831, occupied much of his mind. This he continued to improve in years succeeding, until 1836 he embarked in the first successful endeavor to produce a machine embodying the idea of threshing and cleaning grain at one operation, and after three years of careful study he presented for approval this novel achievement.

August, 1844, Letters Patent were granted, and in the same year the famous patent suit between Luther Whitman and Hiram A. Pitts, which occupied the courts for many years, was commenced. Year after year new patents have been granted to his many improvements, until now the Whitman stands at the head of all Threshing Machines in America. Mr. Whitman still continues manufacturing at the old stand in Winthrop, Me., but his sons, appreciating the advantages to accrue from a nearer residence to the extended grain fields of America, established in St. Louis, in 1870, the largest manufactory in the South-West, and are now active competitors in supplying that great region with the implements of husbandry.

The engraving here presented is from a portrait of recent date, and correctly represents Mr. Whitman as he appears in the evening of life at the advanced age of three score and ten years.

For the Maryland Farmer.

PLANT FOOD.

This article will not be satisfactorily concluded without some mention of the particular manures or different foods of plants, as well as of those substances which act rather as digestions to the soil, and aid in preparing it to give nourishment in a proper form to the different crops.

In the case of some of these, their method of action is sufficiently understood, in others it is obscure, and at best only vaguely comprehended.

Perhaps there is no substance whose agricultural influence is at once so generally acknowledged, and so frequently misunderstood, as the almost omnipresent (oxide of calcium) lime.

It is well in speaking on this subject to recall to the reader's mind what has been before said that plants derive their nourishment almost entirely from soluble salts, and that though the base of the salt may be in large quantities in the ground,

in its crude state, in the absence of such soluble salt, within reach of the roots, the plant will perish as it were in the midst of abundance. There is another point which seriously affects this matter, and which does not appear to be generally borne in mind, i. e., that mineral salts do not move in the soil, and are only very little affected, when in the soil, by the filtration of water. Indeed a bed of sand or soil ten inches in thickness, used as a filter, will retain almost every trace of such salts, even when freely lixiviated, until it becomes almost saturated with the said salt. It follows, therefore, that it is not sufficient that there should be the base quantity requisite to produce a given crop in the soil, but that such quantity should be everywhere available. To produce this ubiquity, it is estimated that a rich soil should contain two hundred times the quantity which would just suffice, if everywhere distributed, and in contact with the roots. In practice it has been found much more difficult to restore land to fertility than to retain it in that condition before it has degenerated; for all efforts at complete distribution must be comparatively feeble.

The quantity of lime required by a wheat crop, of average weight, is about 10 pounds to the acre. This 10 pounds, however, gives no measure of the loss the land has sustained, as it is the soluble salt within reach of the roots which alone is taken, and unless the next crop finds the required quantity and quality within its reach, it would be as well for a hungry man to have a banquet spread for him in another hemisphere, as for the plant to starve in the midst of abundance, placed just beyond its reach.

The great importance of lime, however, is in its secondary quality as a preparer of plant food, and an aid in its distribution. Its reaction with the acids of the soil, its strong action upon decaying vegetable matter, and its faculty of converting clay into mud, and rendering it mechanically fit for culture, are some of its more obvious uses, and as a general rule it may be assumed that the land which is richest in vegetable substances will benefit most by the free use of lime, and gravelly sand the least.

A. T. W.

[THE END.]

KICKING MARE.—The Rural New Yorker says Charles D. Mora asks how to cure a mare of the bad habit of kicking. Fasten a cord to the end of her tail, pass it between her legs and fasten to the lower part of the collar; draw tight. Treat the mare kindly.

Make an impartial estimate of your revenue, and whatever it is, live upon less. Do this and you will never be poor.

Agricultural Calendar.

FARM WORK FOR AUGUST.

This is a sort of half holiday month with the farmer. And yet there is considerable work to engage attention. Wheat and rye may be threshed and sent to market, although it is not a favorable time to send grain to market, as there is usually a dull sale, and prices are rarely settled at this period of the year. The chief work for the month is as follows:

RYE.

Sow as early as you can. The earlier rye is sown the better will the crop likely to be.

GRASSES.

Clover and timothy can be sown this month, either with rye or by themselves, separate or mixed on corn land.

FALL POTATOES.

Keep these free of weeds, and the ground light and well stirred, so as to have a mellow bed for the bulbs.

FENCES.

Keep an eye upon the fences. Stock grow restless and disposed to become breamy at this time of the year. One bad horse or ox will ruin a field of corn in a single night by letting a whole herd in. See that the fences around the corn fields are kept up strong, and use the *Cattle Poke* on all stock that are disposed to be mischievous.

LATE CORN

Ought to be cultivated once a week until it is at least four feet high, when it can be laid by.

GRANARIES.

Whitewash and clean thoroughly granaries and corn bins, for the reception of the grain, so that it shall be safe against the fly, weevil, &c.

SHEEP.

Keep a trough well tarred, and salt sprinkled over the tar, to keep off the gad-fly, as recommended in late issues of the *Maryland Farmer*.

POULTRY HOUSES.

Whitewash these; change the straw or hay often lin the nests, and sprinkle the floors with ashes or lime. Use refuse tobacco in the nests to kill and prevent vermin. Feed the fowls liberally, and let them have the run of the fields. It is about moulting time, and they require extra attention. Give plenty of varied feed and clean water, as also sour milk to the young poultry.

STUBBLE FIELDS.

Sow on each acre, where hay or grain has been

cut, five bushels of salt and plaster, in quantities of three of the former to two of the latter, well mixed, and one hundred pounds of Missouri Bone Meal, or some reliable superphosphate.

FALLING FOR WHEAT.

Plough deep, and harrow as fast as the land is ploughed. That the wheat plants may have a soft, clean bed in which to spread their roots, the land should be harrowed, and rolled and harrowed, until it becomes in the best condition that frequent cultivation can produce, when a reasonable hope for a big yield may be indulged.

TURNIPS,

Sow turnips between the 10th and 20th. To raise a remunerative crop, the land should be well prepared and made rich. Forty two-horse wagon loads of well composted or rotted manure to be ploughed in; then three hundred pounds of a good fertilizer, with ten bushels of ashes, four of salt and two of plaster, intimately intermixed.—Then drill on slightly raised lists, formed by two furrows thrown together, and each "list" rolled or raked flat. When the plants get into the rough leaf stage thin to eight inches in the row, the rows being two feet apart. Keep the ground loose and well worked until the turnips cover the rows.

FEED FOWLS A LITTLE, AND OFTEN.

It is a very careless method of feeding fowls which we see so often adopted, where the grain is thrown down in great heaps on the ground or floor.

It is not only wasteful, but injurious to the fowls, because they get over-fed and it is in an important respect contrary to their habits. For their nature is to "scratch." Watch the old hen with a brood when she is just let out of the coop. She hardly stirs from the spot, but soon as she has realized her freedom, down go her claws into the soil, and afterward, whenever you see her, she is at it.

Always feed, then, no more than can be eaten at once, and take care that it is so scattered amongst some light rubbish, that they may have the luxury of scratching for it. If feed is buried in fresh earth, then they get, with their mouthfuls of grain, something of use to their peculiar digestive organs.—Grain, however, should not be allowed to come in contact with the filthy tainted soil too often found in the poultry-yard.—*The Poultry World*.

KIDNEY WORMS—REMEDY.—A correspondent of the American Farm Journal says: "Put the diseased hog in a pen by itself. The pen should be warm and furnished with plenty of good, dry straw. Give a dram of pulverized indigo in a bran mash each day until it affords relief. It generally effects a cure in a week or ten days."

GARDEN WORK.

Cabbage.—Late sorts of cabbage may yet be set out. Keep the land clean and light by hoeing often. To have good cabbage the land ought to be very rich, and plaster used abundantly.

Celery.—This delightful plant must now be set out in trenches or on the level bed. But in either way, the ground should be prepared in the nicest manner and highly manured.

Asparagus Beds.—Clean these off and sow salt, with mulching of long, coarse stable manure.

Strawberry Beds.—Work these, and keep the runners cut as fast as they appear. They ought to be mulched like asparagus, but the vines must not be covered up.

Radishes.—Sow weekly, and for chief crop for winter, sow the Chinese Rose. They are superior and keep all winter as turnips do in kilns or stoops.

Small Salading.—Sow these at intervals.

Lettuce.—Set out plants for heading, and more seed sown for late fall planting.

Peas.—A few rows of peas can now be sown in a shady, and if possible, moist situation.

Beans.—Sow some beans, and about the middle of the month sow a quantity for pickles.

Endives.—Tie these up for blanching.

Melons and Canteloupes.—Keep these clean, and in dry weather water freely.

Budding.—Whenever the bark parts freely from the stock, cherries and plums may be budded.

Watering.—Water the plants frequently and liberally, always after sunset. It is better to water every third day copiously, than to give a daily sprinkling.

WASHING COMPOUND.—The use of soda for washing linen is very injurious to the tissue and imparts to it a yellow color. In Germany and Belgium the following mixture is now extensively and beneficially used: 2 lbs. of soap are dissolved in about five gallons water as hot as the hand can bear it; then next is added to this fluid three large sized tablespoonfuls of liquid ammonia and one spoonful of best oil of turpentine. These fluids are incorporated rapidly by means of beating them together with a small birch broom. The linen is then soaked in this liquid for three hours, care being taken to cover the washing-tub by a closely fitting wooden cover. By this means the linen is thoroughly cleaned, saving much rubbing, time and fuel. Ammonia does not affect the linen or woollen goods, and is largely used as a liquor in the North of England.—*Rural New Yorker*.

OUR EDITORIAL ASSOCIATION TRIP.

The proprietor of the *Maryland Farmer* had the pleasure of accompanying the Association of Maryland Editors and their invited guests. The route was a very extensive one, probably too much so for the time allowed. The scenery along most of the way was grand and beautiful, and the country looked prosperous, with its crops and fruit products, its herds and flocks.

It is not intended to give even a synopsis of the sayings and doings, and all the sight-seeing, but to notice a few places that to us were more unusually interesting. St. Louis is one of them. Its rapid growth, and the enterprise of its people are very striking features. It is in this city that the Messrs. Whitman have large works for manufacturing Agricultural Machinery. The firm consists of five brothers, sons of Luther Whitman, Esq., Winthrop, Maine. We took much pleasure in viewing these large works, evincing prosperous enterprise, and well repaid industry.

We took great interest in visiting the Grounds of the St. Louis Agricultural and Mechanical Association. The grounds are beautifully ornamented by walks, drives, trees, flowers and shrubbery, with lakes and fountains, making, with the immense amphitheater, with numbers of other tasteful and ornamented structures, a fairy scene, well becoming the gigantic scale upon which the Association conducts its business. It is beyond doubt the finest and most extensive fair grounds in America, and of itself repays the cost of a trip to St. Louis, to inspect it when nothing is going on; what, then, must it be to the beholder, when the grounds are filled with all sorts of machinery, stock, fruits, flowers, and products of the earth, both mineral and vegetable, and not less than 100,000 visitors?

To judge of the present magnitude of the St. Louis Fair, one has only to look at the entries for 1871, which were 8,071. Many single entries, embracing from twenty to five hundred individual articles. Thus under one entry, five hundred specimens or articles may be produced. Thus the magnitude of the Exhibition may be estimated from the 8,071 entries. The new amphitheatre is the largest and finest structure of the kind in America, if not in the world. Its roof will shelter sixty thousand people, and the enclosed arena is 1,320 feet, or one-fourth of a mile in circuit. The flag staff, that rises in the centre, from the center of the lofty pagoda, is 196 feet high, and the stars and stripes that wave from it may be seen from miles away.—All the other buildings are on the like grand scale and immensity. The gross receipts during the week of the last Exhibition were over 90,000 dol-

1ars! This Exposition brings to St. Louis annually not less than 100,000 visitors, for a week or ten days—from all parts of the country, thus contributing largely to the wealth, and extending the trade and commerce of the city to a wonderful extent. The merchants and people of all classes see the advantages of such an institution, and by hearty co-operation, make it a grand success, each year surpassing the year before.

SHAW'S GARDEN.

This celebrated garden of about 45 acres, belonging to a private gentleman of great wealth, is we confess, the finest we have seen in this country, either as a public or private one. In our judgment it is equal, and in many respects superior to the most celebrated gardens of the old world, which we saw with admiration some years ago, when on an European tour. Although this is a private garden, the liberality of the owner, Mr. Shaw, allows it to be used, under certain restrictive rules, by all classes and conditions of the people, who eagerly embrace the opportunity, though it is five miles from the heart of the city. It seemed to us that there were as many people over the ground as are usually seen in our Druid Hill Park, of which as Baltimoreans we are justly proud, yet must yield the palm to Mr. Shaw's ground for its beauty—its ornamental arrangement, and its unequalled floral and tree display, embracing every native and tropical plant that can be grown on open ground or in the green or hot-houses and conservatories. It is the proud feature in the park line of this growing and splendid young city, already Queen of the West.

On our arrival at the Planters' Hotel, selected as headquarters for our Association, we met an acquaintance of years ago, in the person of Mr. Kelsey, proprietor of the hotel, and we were especially cared for, although he paid the kindest attention to the entire Editorial Association, and won their appreciative admiration. Individually we shall not soon forget his attentions to our every want, his warm welcome, and the princely hospitality offered us in his private apartments.

INDIANAPOLIS.

Our stay in this beautiful town, seated on the boundless prairie, so level one naturally looks to see which way the waters run, was so limited, we could only drive through the town, and visit the largest, and everyway the most extensive manufacturing establishment of its kind in the world, probably, "The Woodburn and Sarven Wheel Company." They manufacture every variety of carriage material, but their great specialty is the "Sarven

Patent Wheels," so celebrated throughout the country. We can only say everything was on a vast scale, and gave us as a manufacturer particular pleasure in our visit to this great establishment.—We were much gratified at the courtesy extended to us by the proprietors, and all with whom we came in contact during our visit of inspection.—From Indianapolis to St. Louis we passed through a lovely and fertile farming country, that teemed with fine crops of grain and grass, and seemed to be well farmed by a thrifty and intelligent population.

There are other places we may notice in our next numbers, not having room in this issue for further particulars that we noted during our pleasant trip. This journey will ever be remembered with pleasure by us; it could not have been otherwise, made in the company of so many educated, refined, talented, genial and jovial gentlemen.

W.

For the Maryland Farmer.

TO MAKE GRASS GROW ON LIGHT LANDS.

With a very large number of landholders in Maryland and more Southern States, the most pressing need, after supplying themselves, and those dependent on them with the necessities of decent living, is to make their lands more productive to bring them up from the wretchedness of paying very little or nothing, or worse than nothing, for the scant and costly labor they spend upon them. Poor land is with all these the evil of evils—worse than ignorance, worse than scarcity of labor, worse than taxes and freights, and whatever else we find most grievous. Taxes and freight need trouble as little when we make so little to be taxed and freighted; scarcity of labor does not concern us when we can make no profit of what we have, and for ignorance we must be ever duller than our cousins of "the learned professions," think us, if we know not enough in this day of cheap knowledge, to take at least the first steps to a better state of things.

The most ignorant, indeed, those who cannot read, if there are such, and those who will not, can not be supposed to be ignorant of the truth that for all land improvements grass is the root of the matter, and they know, too, how to make grass grow. Some philosopher has said that it is not so much more knowledge that men want, as to know better the things that they do know. It is just in this, perhaps, that we find the man who rejects book farming, often gets ahead of his more knowing neighbors. He has not many ideas to deal with, but he has the sagacity to take hold of a good

one when he comes across it, and to put it to work; and as he who would learn to do a thing must learn by doing it, the man of few ideas gets to know better what he does know. Now, as I said, it is a very ignorant man who does not know that the best thing to be done with poor land is to make grass grow upon it, and who does not know how to make it grow? Let him go to work on what he knows, and keep working up to his knowledge; he learns as he goes, and if he goes at first at a snail's pace, he gets more surely to his journey's end than his more ambitious neighbor, who will not start until he becomes burdened with "loads of learned lumber."

I started to reproduce a portion of an article by a well known writer on agricultural topics which appeared in a late number of the *Country Gentleman*. Mr. Levi Bartlett, of New Hampshire, gives in this article the experience of two intelligent farmers in improving the "exhausted light pine lands," in Massachusetts. They are worthy of note, not so much that there is anything new in them, as for example and encouragement, because we have in the south a great extent of such lands, and they are usually supposed to be hard to improve, or rather not capable of holding improvement, and this mainly because they are thought not adapted to grass growing.

One of the persons named says: "My first object has been to get grass to grow on these lands. I have been uniformly successful, except in case of severe drouth; and judging from the short experience which I have had, I know of no pine plain so poor as to be incapable of becoming fair mowing land—say one to one and a half tons per acre of clover, herds grass, (timothy,) and a suitable supply of grass seed, even without manure; and where manure can be supplied, the crops of course will be much better. If manure is not applied, the grass should remain and rot on the ground the first year at least, and never be grazed, and a second ploughing and seeding given before a crop is taken off.—Corn, small grain and root crops easily follow on these lands after a good grass sward is obtained."

It will be noted that here we have first variety of grass seed. The red top grass, which we call herds grass, is one of these, and is valuable both for hay and pasturage, and the very strong turf it makes. It grows naturally in our low grounds, but is rarely sown, we think, on uplands. The next point is that the whole growth "for the first year at least," is to remain and rot on the ground, if manure is not applied. How entirely is this at variance with common practice, where all that can be, is cut off, and flocks and herds turned in to gather

up what remains. It is only by allowing the first crop to become fully matured that we get the greatest development of the roots that make so valuable a portion of the product. The value of the surface covering, the large store of material to make a stock of humus, and the matured grass seeds that the soil becomes charged with, are all points of material advantage that come of leaving the first year's crop on the land. After the first year it is to be mowed, but *never grazed*; all after-growth from mid-summer, therefore, lies upon the surface to protect the roots, and gives additional fertility.

We bear in mind, now, that this is special treatment for very light soils, of which the common complaint is they will not "hold" improvement.—We want to make them "hold" on when we have brought them up. Another point therefore is that after mowing, as long as it is found profitable, they are to be ploughed and seeded down again before a crop of corn or grain is taken from the ground. With this sod turned down and undisturbed for a number of years, while another is accumulating on the surface, there is provision for profitable cultivation in corn, small grain and roots. The small cost at which these light soils are worked makes them profitable when sufficiently fertilized.

Another matter insisted on by these experimenters is that after taking a crop of corn or other hoed crop, the sod that is turned down before planting is not to be brought again to the surface before sowing grain and grass seed. The preparation for seeding is made with a light plow, that will not run deeper than four inches, or with a heavy cultivator. It is argued that in this way you get "a better and finer tilth for grain and grass seeds, escape the bother of lumps and clods, and, in all probability, harvest a much heavier yield of grain and grass than by the old method, because the roots will descend to the decomposing vegetable matter of the sod, which like a sponge will retain the ascending moisture from the subsoil, and the crops thereby suffer but little from drouths." Another says: "In preparing the land for oats, I shall use a heavy ox-cultivator. If any one should offer to plough the ground gratis, so deep as to turn up the inverted sod, I should refuse the offer. The use of the roller is especially insisted on for thin lands. After ploughing as deep as the depth of the soil admits, at least four inches, and from six to eight if the soil allows, Mr. Clarke says: "After a day or two to dry, let the ground be settled down well with a *heavy roller*. This roller lies at the foundation of profitable culture of these light lands; without it, or some suitable substitute, I consider these lands of little or no value; but with the roller

I know of no land that gives better returns, except it be rich, warm intervals, &c."

EXHAUSTED LANDS.

So much has been said of the worn-out soils of the South, and our lecturing cousins of the North have volunteered so much good advice about improving our agricultural ways, that it will be a matter of surprise to many to learn that there is any poor land in Massachusetts. But precisely the same causes that operated in the Southern States left many thousand of acres waste in the New England States. They were worn out by improvident cultivation, and the population that wasted them found it more profitable to emigrate to new lands than to restore the old. What we have seen magniloquently styled "the splendid superstructures of Northern agriculture," is based upon a prosperous commerce and well protected manufacturers. These have supplied the means and the markets that have renewed the face of the earth along the highways, and near to towns and cities; and it is surprising to find that still there remains so much exhausted land to be improved. Mr. Bartlett speaking of his own section of New Hampshire, says: "Within the past twenty-five years, hundreds of *once good farms* have been abandoned—by bad management, worn out, as it is generally termed." Again, "There are in this State thousands upon thousands of acres of pine plain lands uncultivated that might easily be made to yield remunerative crops of most kinds of farm products usually grown in this section." Again, the same writer, in an article on "Cause of Drouths," in *Country Gentleman*, July 10th, says: "There are thousands upon thousands of acres more of land now covered with trees, than there were sixty years ago."

The following extract of a letter in the *Massachusetts Ploughman*, presents a phase of Massachusetts farm life that we never get a glimpse of in the speeches of Dr. Loring. The letter is written by "A Late Assistant Marshall," in reply to a charge that the late Census Report of the Agriculture of the State was very defective. His instructions had required that no farm be reported "of less than three acres, unless five hundred dollars worth of produce has been annually sold off from it during the year. A farm is what is owned or leased by one man, and cultivated under his care." The injustice done by the report seemed to lie in the fact as stated by the Marshall, that there are thousands of farms in the State that do not get the labor of one man during the year, nor sell from them five hundred dollars worth of produce. He says: "The writer had allotted to him a small town (district)

containing about eighteen hundred inhabitants, and could find but forty-five farms to report, notwithstanding it is principally an agricultural town." A large proportion of the showy and prosperous side of New England agriculture is in the hands of amateurs, who have made the means to farm profitably in other paths of life. We have some of the same kind in Maryland, but mainly we must depend on the slow and sure way of getting our poor grounds gradually covered with sod.

N. B. WORLINGTON.

FORESTS AND RAIN-FALL.

The "Bulletin of the Torrey Botanical Club" for February contains a letter from Mr. Fred. Hubbard, which gives a series of facts respecting the relation of rain-fall and forests as exemplified in some of the West India Islands, which we regard as important, and from its bearing on this somewhat disputed subject we think its reproduction here will be useful.

The introductory remarks refer to some previously published statements in the Monthly Agricultural Report, by Mr. James S. Merriam, of New York :

Your brief published statement concerning the diminution in rain-fall of the island Santa Cruz is in the main correct, save that it gives the idea of a more rapid change than has probably taken place. At my former visit, twenty-seven years ago, the desiccation had undoubtedly made some progress, but not sufficient to make itself manifest in a very marked degree. The change from fertility to barrenness, which at first must have been almost imperceptible, is no doubt taking place in an accelerating ratio.

Every new plantation swallowed up by the onward march of desolation, augments the cause and renders the arrest of the evil more and more hopeless. This movement is from the east (the windward end of the island) toward the west, and is now quite conspicuous. Every few years an estate, formerly green with cane-fields, becoming incapable of producing further crops, has to be abandoned to the graziers, whose cattle find a meager pasture upon it a few seasons longer.—These are in turn driven off, and the land is entirely abandoned. Henceforward it becomes, if not quite a desert, at least a barren waste, producing only a sparse and prickly vegetation, over which a few arborescent cacti reign supreme. A narrow belt of green lines the sea-shore of this region, consisting of coca-nut palms, the poisonous manchineel, the sea-side grape, and a few shrubs, whose natural habitat is along the high-water mark ; but inland cultivation is impossible without constant irrigation. As there are no streams upon the island with the exception of a few rills chiefly near the western end, and the wells are failing, no means remain to force life from the unwilling soil. Some attempts were at one time made to arrest this insidious advance, but too late

to be effectual. A planter, I was told, not long since set out a thousand trees upon his estate and lost every one. It is probable that had this remedy been universally adopted in time there might be a more hopeful future for Santa Cruz. But the final depopulation of this beautiful island seems now to be written indelibly among the decrees of fate.

St. Thomas, an island lying thirty miles distant, is similarly affected. This island, however, being loftier, and having scarcely any level land, seems to attract to itself a rather more liberal amount of moisture from the clouds.

About fifty miles westward of these islands, and in the same parallel lies the large island of Porto Rico. The land here is almost wholly mountainous, the eastern ridges rising to 3,000 feet. A large portion of the interior is still covered with primitive forest, a tangled tropical vegetation of vivid perennial verdure. The rain-fall is abundant and the soil yields beautiful crops of coffee and sugar, with a great variety of fruits.

The contrast between neighboring islands so similarly situated is most striking. The sad change which has befallen the smaller one is, without any doubt, to be ascribed to human agency alone. It is recorded of these that in former times they were clothed with dense forests, and their oldest inhabitants remember when the rains were abundant, and the hills and all uncultivated places were shaded by extensive groves. The removal of the trees was certainly the cause of the present evil. The opening of the soil to the vertical sun rapidly dries up the moisture, and prevents the rain from sinking to the roots of plants. The rainy seasons in these climates are not continuous cloudy days, but successions of sudden showers, with the sun shining hot in the intervals. Without shade upon the surface the water is rapidly exhaled, and springs and streams diminish. There is also, as many believe, an electrical action produced by the points of leaves upon the atmosphere, compelling it to yield up its moisture. However feeble may be this effect from a single tree, the myriad spears of a whole forest presented to the sky undoubtedly do exert a marked and powerful influence. It is probably from such a combined action that the drying up of the soil from the removal of the trees, destroying the balance of nature, goes on with ever-increasing rapidity.

An equally marked example of the effect we are considering is seen in the small island of Curacao, lying in latitude 12° north, sixty miles from the coast of Venezuela. I visited this in 1845, and found an almost perfect desert, where, according to the testimony of the inhabitants, had once been a garden of fertility. Abandoned plantations, the recent ruins of beautiful villas and terraced gardens, and broad arid wastes without a blade of grass, showed how sudden and complete a destruction had fallen upon this unfortunate little island. The cause was the cutting down the trees for the export of their valuable timber. The effect followed even more rapidly than at Santa Cruz, as the island lies five degrees further to the south, and the heat is more intense. The rains have almost entirely ceased, and fresh water is among the luxuries. Almost within sight of Curacao is the coast of the Spanish Main, covered with the rankest vegetation over which the burdened clouds shower down abundant blessings.

For the Maryland Farmer.

A VARIETY OF STATEMENTS AND SUGGESTIONS ALL IMPORTANT TO THE FARMER.

NUMBER NINE.

HOW TO MAKE A FARMER, OR HOW TO INSTILL THE SPIRIT OF CONTENTMENT IN THE MIND OF FARMERS' SONS,

So that they will love their vocation, and will pursue it with that degree of skill and intelligence and advantage that always secures success. The reader will doubtless remember the description given by the farmer's wife, quoted in the preceding chapter, of all her toils and troubles, which she claimed rendered the adoption of my recommendations utterly impracticable. This I granted; but I have little hope of reaching effectively those in the condition of this poor woman, and her husband and children; my only hope of their condition being ameliorated is founded in the fact that this farmer reads the *Maryland Farmer*.

COMMON ERRORS.

He has evidently, like thousands of others, committed the great error of running too heavily in debt, buying two much land, and probably in making too heavy a first payment on the farm, so that he has no means with which to conduct the farm profitably. Thus shackled, (as it were, hand and foot,) he undertakes, under all the disadvantages imaginable, by over-working every man, woman, child and beast, and keeping all as cheaply as possible, to get out of debt.

There is no hope for the sons of this unfortunate farmer; they are not going to be farmers; it will be very strange if they should, for the condition of the convict is scarcely less intolerable. It would be infinitely better for those possessed of but limited means, who desire to work on and finally to occupy and own a farm in fee, if they would be contented to work for some intelligent, well-to-do farmer until they have accumulated the wherewith to purchase the necessary stock, implements, &c., required by a tenant farmer, when he should lease a farm "on shares." This will be much safer than to agree to pay a cash rent, as one bad season, or other casualty, may reduce him to insolvency at once; but when he shall have accumulated sufficient means to make him safe in case everything fails, for a year, or he has partial failures for several years, he may then venture to lease a farm for a cash rental, or even to purchase a small farm, for which he can pay at once, and have means to stock and conduct his farm without heavy indebtedness.

THIS IS THE HOPEFUL CLASS.

It is just this class of farmers to whom I look for with most hope, that they will so nurture their children, that in them I may realize what I so fondly desire to accomplish.

THE HOPELESSNESS OF THE CONDITION OF THE SONS
OF THE RICH FARMER

Greatly surpasses that of the medium, or the very poor class; if the sons of the classes last named are only taken at an early age and the parents can only be made to realize their parental responsibility.

As I stated in premising this treatise, that I had no hope, except in those lads who are taken when very young, and nurtured and enticed into a love for the pursuit of the husbandman, through very available means.

In the preceding chapter I enumerated a numerous catalogue of matters to be taught to the little boy, and pointed out how they may most readily and most effectively be taught; and the same principle which applied to the training of the child equally applies to youth and young men. Hence, fidelity, constancy, patience, intimacy, and great tact, must be constantly exercised by the parent toward the child, to insure success. The farm, and all its appurtenances, the household associations, particularly the intercourse between parents and children, must in every tendency be pleasant, refining and as seductive as possible.

TRAINING IN REGULAR DAILY LABOR,

If it is properly conducted, need not repulse the child or youth from it; and will not, if an excess of it is not required, and the father displays an ordinary degree of sagacity in the government of his son.

Until a fondness for work, and an interest in it is effected, in a lad, I have found that too many days devoted to holiday purposes for children, are unprofitable, and that time thus spent from home is calculated to wean the affections from home, and the necessary daily duties. Whilst no real dissipation, (in the common acceptation of the word,) may not have been indulged in during a day's absence from home, the tendency is notwithstanding to dissipate the mind, and create an uneasiness not hitherto evinced.

Pleasing and profitable study and reading, should daily be alternated with tiresome labor, and a short space of time spent by the parent, once or twice a day with the lad, in explaining to him every principle embodied in work in progress, and the prospective results from it—comments and informal lectures on all surrounding common-place matters,

that are important to know, will also be interesting and profitable, and will make the boy manly, intelligent and happy.

PECUNIARY REWARD

Is early appreciated by boys, and parents seem often to take a childish view of the value of the chilck and also of the money, which they are so diligently laboring to hoard.

Three or five dollars given the little boy in the shape of a calf or lamb, with the full understanding that it is his, and that he is to pay for its keep in diligent, faithful labor, and if he does perform on his part, he is to have the proceeds of the animal when sold. He is to be made thoroughly to understand that the proceeds are not to be spent in any foolish or unprofitable investment, but are either to be deposited in the savings bank, or to be invested immediately in another animal, which promises quite certainly increase in its value, in due time, which should not be too far in the future for a month is often to the boy equivalent to a year to the middle-aged man; and every reasonable way to avoid provoking impatience in the lad, until he reaches the age of discretion, should be most carefully avoided. Ten dollars given thus to the boy will not only make him feel that he is well rewarded for his labor, but it early impresses him that his vocation is remunerative, or even lucrative, by which his interest in it will be intensified, and it will effect just what we are aiming at, it will so well satisfy him that he will desire no change, no better business than that he has. A few dollars used on the principle that I have recommended may readily be worth more to him when he becomes a man, than a thousand would if retained and given to him at once, without having acquired it moderately, and he feels, by *working for*.

A COMMON ERROR,

With both parents and teachers, in the nurture and education of youths, it is rare that duty and fidelity in them are sufficiently commended and rewarded. Parents are apt to be very particular to note and often, much too often, punish for minor omissions or commissions, whilst the most manly and praiseworthy deeds are passed unobserved and unrewarded. No course is more ruinous in its influences—and it is to be hoped, gentle reader, if you have a child for whom you are responsible to the God who gave it to you, that you will heed the precept above given, and that you will never forget the great responsibility of a parent.

SCHOLASTIC INSTRUCTION, AND INSTRUCTION IN
LABOR,

Should, as far as practicable, be alternated, at as

short intervals of every day. I have known wealthy farmers' sons to be sent to boarding school, and there continued for several years, consecutively, and when they returned to the farm, under all the defects of the old system, labor as they were taught it, was really abhorrent to them, and their dislike for it grew with their growth, and matured into a determination never to be a farmer, if that was farming. I have also observed the effect of three months' schooling only, at a time, at a neighboring school, given the farmer's son, and collateral with the instruction at school, the lad participated daily in the routine daily winter work of the farm, and thus maintained an interest in the work, to which he returned, when the school was discontinued, without that distaste described in the case of the prospective heir of wealth.

LOSS OF TIME.

The farmer should disabuse his mind of the erroneous opinion, apparently so generally entertained, that it is a loss of time to spend a half hour or so daily in any and all the ways that he can devise, by which he can interest, with pleasure and profit, his son, whilst he is performing labor, that, for the time being at least, seems to the lad to be unrequited. Let not these golden opportunities pass unimproved to instill intelligence into the mind of your son, and to inspire love for you and for his vocation, into his tender, developing affections.—If this is ever done, it must be done in this way, and in this way alone, and at an early age.

J. WILKINSON,

Rural Architect, Landscape Gardener, and Consulting Agriculturist, Baltimore.

[TO BE CONTINUED.]

PEAR CULTURE.

BY G. F. B. LEIGHTON, NORFOLK, VA.

While attending the session of the American Pomological Society in your city in September last, many questions were asked as to my method of raising such large pears.

I herewith give my method of planting and treatment of trees, the fruits of which have surprised our Northern and Western friends so much the past three years.

I plant my dwarf trees twelve and a half feet feet apart each way, (perhaps 12½ by 14 feet would be better for Euchess d'Angouleme,) digging my holes about three and a half feet square and three feet deep. My hole is overlaid with stiff blue clay from three to seven feet in depth, under which is sand.

In order to make underdrainage perfect, I bore with a post auger a hole from the centre of the three feet hole down to the sand, and fill said auger hole with oyster shells, adding about a bushel in the bottom of large hole. I then add about six inches of finely cut brush, (hard wood,) then fill up the holes with top soil mixed with a compost of muck, woods' earth and lime—say six parts of the first, five of the second, and one of the latter.—Should the muck be fresh I would add one-half part of salt. I regard the salt as indispensable. There is much of truth in that old Scotch saying, that "muck is the mother of the meal chest."

I find the above compost excellent for clover as well as pears.

In planting my trees I endeavor to have the bunch at the joining of the pear with the quince about two inches below the level of the ground.

No crops are allowed among my pear trees excepting occasionally the black pea, which I plant as a fertilizer; and even when I plant these, I adopt the clean culture system until the first of June.

Few persons are aware of the sensitiveness of the gear tree, of its prompt response to generous treatment, or its pining at neglect.

Of all the pear food robbers I place strawberries at the head of the list.

Persons who have not the courage and disposition to spare the land and keep it thoroughly cultivated, should not embark in the business of pear culture, for loss and disappointment only await them.

I have avoided barn-yard manure among my trees, either in planting or after culture.

Finding the trees so healthy and vigorous under the treatment of the compost first named, that I shall not make any change, excepting when the trees come into full bearing, when I shall add bone and ashes for fruit food.

In short the following are requisites for successful pear culture in Eastern Virginia:

- 1st. Perfect drainage.
- 2d. Stiffest clay soil.
- 3d. Proper planting of the trees.
- 4th. Clean culture.
- 5th. Healthy trees, (which can be had of responsible nurserymen direct, without the intervention of an agent, and imparting the satisfaction of having every tree true to name.)
- 6th. Timely supply of proper food for growth of both wood and fruit.
- 7th. Determination, patience, and sufficient of the sacrificing spirit to remove all fruit until the tree has sufficient wood to sustain it without checking the wood growth.
- 8th. Judicious pruning, (better none than too much.)
- 9th. Careful picking, packing and handling of the packages.
- 10th. The right kind of an agent to dispose of them.—*Southern Planter and Farmer,*

WASHINGTON COUNTY FARMERS' CLUB.

On the 21st of June we attended, by invitation, a meeting of the Washington County Farmers' Club. We were highly gratified with the hospitable and kind reception extended to us. Our host, Mr. Berry, and his accomplished lady, gave us with other friends a warm welcome, and entertained us in princely style at their large mansion, which is surrounded with extensive grounds, that rival those of any other private residence in the State, in tasteful adornments and floral beauty. Our friends in Hagerstown, and everywhere we went, seemed determined to prove that the Highlanders of Maryland were no laggards in dispensing kind courtesies to a Lowland stranger, making him feel as much at home among the mountains as if he were in his native vallies. The Washington House, at Hagerstown, we found to be a capital hotel, and we are largely indebted to the polite attentions of its proprietor, Mr. Stanhope, an old time Virginia gentleman, who knows how "to run a hotel" in a way to gratify every want of his visitors.

We had intended preparing a full account of our visit, but finding just such an one as we intended to write, ready at our hands, prepared by the Agricultural Editor of the *Sun*, we beg leave to borrow and adopt it, as follows:

We have recently been to Washington county, and on our journey over the Western Maryland railroad, passed through that important and fertile tier of counties, Baltimore, Carroll, Frederick and Washington, to Williamsport, and beyond. There is nowhere in this Union a road of its length which is more interesting to the traveler, whether farmer, merchant, artist or sight-seeker. Its route is by the side of murmuring streams that water and drain, and at the foot of mountains, that, like walls, protected and shelter the lovely, highly cultivated valleys which stretch along the whole way. When, by winding around the mountains we reach Summit Ridge, a magnificent panorama is suddenly unrolled before us, worthy of the pencil of an Apelles or a Titian,

We attended on Saturday, the 21st instant, the meeting of the Farmers' Club, held in a grove on the farm of Alonzo Berry, Esq., formerly from Prince George's county. The Club had a fine picnic, and there were present, including members, invited guests and ladies, over one hundred persons. J. Motter, Esq., is president, and Colonel A. K. Stake is the secretary. Among the members and distinguished persons present, we mention only such as were made known to us personally—the proprietor of the ground, A. Berry, Esq., Dr. Maddox, Hon. William T. Hamilton, Judge Weizel, Judge Keppler, A. Neill, J. L. McAtee, James Finley, R. Holliday, Esq., of Winchester, Va., G. W. Harris, president of the Agricultural Society of the county, and David Brombaugh, Esq., ex-president.

It seems to be the rule with the Club to have an essay read by some member, and then a dis-

cussion on some subjects or subjects which had been announced at the former meeting. On this occasion the essay was prepared by Dr. Maddox. The discussion was on "Rotation of Crops." A variety of opinions, and a spicy, pleasant and interesting exchange of opinions was expressed; the prevailing opinion seemed to be that rotation of crops was essential, and that land ought to be cultivated in rotated crops for three or four years before being seeded in grass. The habit prevails in this county to work the land at least two years in succession before sowing clover or other grasses. This course is pursued, we presume, to get rid of the bluegrass, blue-thistle, ox-eye daisy and other pests prevalent in that region.

Before the meeting adjourned Col. W. W. W. Bowie, associate editor of the *Maryland Farmer*, who was present by invitation from the club, was elected a member and requested to address the club. He complied, and entertained the association for a short time, discussing the need of agriculture in general, and commanding the zeal of the Washington county farmers in their efforts to carry on the work of agricultural progress.

We were satisfied from the whole proceedings that this club means work, and will accomplish a great deal for their interests. These clubs should be formed in every precinct of the county. They bring farmers together for candid interchange of sentiments, to report experiments, discuss results and gather up a mass of useful facts. These clubs concentrate sentiments and lead to the development of their power, which will eventually tend to harmony and unity upon such questions as particularly appertain to the farming interest. There are many other reasons, such as those of a social character, and others, which show how necessary these small associations are to the comfort and welfare of our people.

We deem the roads in Washington to be better than those of most of the counties in the State, and the people seem to take great interest in them. It has within its borders several turnpikes, five railroads and the Chesapeake and Ohio canal, with the Potomac for one of its boundaries. Thus there is every facility for transportation of all products.—The soil is naturally stiff, fertile clay, and produces fine crops, but the face of the fields in cultivation is marred in beauty by the very unseemly boulders and rocks of limestone which crop out above ground, much too numerous in certain places. There seems to be considerable attention given to stock-growing, particularly of hogs, of which there seems to be a large supply, and mostly of improved breeds.

Of crops now growing, we looked upon the corn as backward and not promising as it was so uneven, because so much had to be replanted; it stood badly. Oats are a total failure, because of the drought we have had; it is greater there than in this section. Wheat seems to be very promising; it is headed, but still very green, although we saw some small crops of "Boughton" being harvested in Carroll and Frederick counties.

We saw some very superior farms between Hagerstown and Williamsport, and a lovely view near the church at the latter place. We stood on a bluff that gave to our delighted visions the Poto-

mac river and canal side by side, winding at the foot of the mountain on the Virginia side, and receiving Connogoge creek which skirts a lovely valley running around the town. This is a scene so quiet, so full of beauty it should be transferred to the canvas of some eminent landscape painter.—Why should our artists and tourists run away north or far away west for beautiful sketches and enjoyment of healthful nature, when we have such superb scenes and such health giving localities in our mountain regions, brought by power of steam to our very doors? Among the well managed and highly valuable farms we saw was that of our host, A. Berry, Esq. He has several hundred acres of arable land, and large quarries of lime-stone and lime-stone black marble lying right on the canal and Potomac river. The marble takes on as beautiful a polish when dressed as does the costly Egyptian marble, which in color and polish and hardness it much resembles. They will soon become of immense value to their owner. Our marble-workers should look to these quarries.

THE STRENGTH OF THE SOUTH.

Much as the South has been weakened by the war, it has yet vast wealth, and all the elements of rapid recuperation. It has the control of the greatest commercial crop the world produces; and its products are increasing largely in value every year. We have made the following compilation from the census, showing the value of farms, and farm products in each of the ten Southern States:

<i>State.</i>	<i>Value of Farms.</i>	<i>Value Farm Products.</i>
Alabama	\$67,700,000	\$67,500,000
Florida	10,000,000	8,900,000
Georgia	94,500,000	80,400,000
Louisiana	68,200,000	52,000,000
Mississippi	81,700,000	73,100,000
North Carolina	78,200,000	57,800,000
South Carolina	44,800,000	41,900,000
Tennessee	218,700,000	86,500,000
Texas	60,100,000	49,100,000
Virginia	213,000,000	51,700,000
Total,	\$936,900,000	\$568,900,000

The following statement shows the true value of real estate in the foregoing States, and the amount of State, County and Local Taxation in 1870:

	<i>True Value.</i>	<i>Taxation.</i>
Alabama	\$201,800,000	\$2,900,000
Florida	44,100,000	187,000
Georgia	268,200,000	1,184,000
Louisiana	323,100,000	727,000
Mississippi	209,200,000	828,000
North Carolina	260,800,000	1,071,000
South Carolina	208,100,000	705,000
Tennessee	498,200,000	1,258,000
Texas	159,000,000	818,000
Virginia	409,600,000	1,225,000
Total,	\$2,582,100,000	\$10,903,000

Always be ready to speak your mind and a base man will avoid you.

For the Maryland Farmer.

POTOMAC FRUIT GROWERS ASSOCIATION.

JULY MEETING.

While many of the fruit growers staid at home to take advantage of the favorable weather, enough were present to make a good display of fruit, and to hold a lively and profitable conversation. The fruits exhibited were by the President, Chalkley Gillingham, last years' Abram and this years' Summer Rose, Red Astrachan and Early Harvest apples, and Early Golden apricot. Stacy Snowden showed the Early Strawberry apple and Philadelphia raspberry. With the latter he was well satisfied. Mr. Munson exhibited some fine Carnation Morello cherries. Messrs. William N. Falkenau, of Falls Church, and J. M. Lewis, of Gunston, Va., were elected to membership.

REPORT ON WHITE FOLIAGE.

Prof. Brainard submitted a report on the white and mottled currant leaves referred to him. The leaves presented a blotched appearance, due to the absence of chlorophyl, or green coloring matter; could find nothing abnormal in the structure of the leaf. Having submitted it to the Potomac Natural History Society, where much discussion ensued, he learned that the effect was capable of propagation by inoculation, which proved to his mind that it was a disease, the cause of which should, if possible, be determined. He had collected some wild plants which were blanched in a similar manner, specimens of which were submitted for examination. These were obtained from Pt. Lookout, on ground occupied by prisoners during the war, and he imagined that the disease may have arisen from an excess of night soil. The currant bushes from which the leaves submitted were taken, he had just learned, were manured with fresh stable manure. It is probably safer to use fresh manure sparingly, especially night soil, on food plants. Dr. Howland had put out currants on new land and manured with fresh stable manure; had noticed the same effect.

Mr. King likened the blight, if so it may be termed, to a similar appearance in the peach; and Chalkley Gillingham the same in regard to an apple tree on poor land. The inference was that the want of natural color was the result of irregularity in the food-supply of the plant.

FRUIT.

Fruit reports were bad for early peaches, Hale's in particular. Apples rotting in some localities. One report of failure for Winesap.

INSECTS.

A letter was read by the Secretary, from the officers of the Anti-Caterpillar Society, of Vienna, Va. It is composed of boys who propose to do what they can toward the extirpation of moths and caterpillars in their locality. The Secretary was instructed to send them monthly reports, and give them such aid as lay in his power.

The conversation then turned on the natural allies of the young society, the birds, and none were too mean, even crow, and buzzard, and hawk to have a word said in their behalf. There were some, however, that still had prejudice against these birds. The king bird was well spoken of by Major Hine, who reported the contents of the crop of one he shot in feeding about a bee-hive, as being composed of cut worms and moths, with no recognizable bee. The toad was also eulogized, not for his grace of flight or tunefulness of song, but for his bottomless maw for bugs and his retiring and modest disposition.

It was announced that the buzzard is no longer the national bird of Virginia, enjoying exclusive protection, but that a statute is now in force protecting insectivorous birds.

CHERRIES.

Of cherries, the Carnation Morello was highly recommended. In this connection a member quoted the advice of Henry A. Wise, to plant out Morellos by the thousand, if possible, as no more profitable fruit could be found. He said, cut away the black knot and burn as fast as it appears, and plant out young trees as fast as the old ones die.

Major Williams, an experienced fruit raiser, said: The cherry is one of the most profitable by reason of its age, and one of the healthiest and most delicious fruits grown. From his experience, I thought that the hills of Fairfax are nowhere excelled for its cultivation. Recommended Knight's Early Black, Black Tartarian, Graftion, Mayduke, Black Eagle, Elton, Florence, Downton and Napoleon. The two latter are disposed to rot, but are well worth cultivating. He also, from his own success with it, recommended the English Mulberry (*morus nigra*.)

WESTERN MARKET.

Col. Daniels, of Gunston, editor of the *State Journal*, spoke of the advantages of raising fruit for the *North West*. He had had applications from commission men in the Western States for peaches, offering a much higher price above freights than could be obtained here. It would be well for our large fruit growers to look out for the Chicago market.

RASPBERRIES.

Mr. Snowden believed in the Philadelphia. Mr. Bramhall characterized it as soft, sour and dingy. Mr. Brian believed in the French, and in his practice of mulching, a small part of his plantation went uncultivated; the result was a very poor crop in comparison with the rest. He picked 800 quarts the day before.

A lady from Clifton, inquired if raspberries were naturally adapted to this region? The President responded, no. At the close of the discussion, Mr. Bramhall presented the following paper:

It has been asked if raspberries are adapted to this climate, and answered in the negative. This perhaps is the state in Nature, but with a certain amount of care and cultivation necessary for the successful raising of any fruit, we may have it in as high a state of perfection, and make it as profitable as it is at the North. If Maine is its native country, as has been stated, its climate certainly is not more kind to them than is ours, for while we have to mulch in summer to obtain the finest berries, they have to cover the canes in winter with earth to obtain any crop at all. Red raspberries are originally, I believe, from Greece, and take their botanical name, (*Rubus Ideus*.) from Mount Ida, the home of the gods. Ours more nearly resembles the climate of Greece than does that of the Northern States; and no more congenial to the raspberry, while the native variety or American Blackcap is as omnipresent as the Yankee himself. From this and its improvements we can get heavy crops, with a lack of cultivation that amounts almost to abuse. From the true raspberry, planted on a sandy loam in a northern exposure, with cultivation and mulching we may also obtain large crops of a delicate flavored and delicious fruit.—This mulching is not so difficult or expensive as is generally supposed. Wheat and buckwheat straw is not good for much else, and used thus helps greatly to make the grain crop profitable.—It is easily applied, and richly rewards the labor by keeping the ground moist and free from weeds, and prevents the berries from getting sandy.—Mulching makes a difference of two to four cents a quart in the price of the berries, and a large difference in the yield. Let us hope that we may understand the requirements of this fruit, and disseminate the information sufficiently to make the raspberry one of our commonest crops, and so contribute to the prosperity and productiveness of this region.

HOLLYWOOD.

D. W. Kauffman states in the *Iowa Homestead*, that he finds wood ashes, after fifteen years' use, to be worth \$1 per bushel for dressing fruit trees.

THE CANADA AND OTHER THISTLES.

These members of the *Composite* family are regarded by farmers as among the most noxious weeds with which they have to contend, and this probably from the fact that the so-called Canada thistle, *Cirsium arvense*, has found a lodgment over the entire Eastern, Middle and Western States, upon all light, sandy and clay loams sufficiently well drained to enable this pest to get a foothold.—Years ago the Legislature of Illinois, having had its attention called to its spread in that State, passed a law that it should not be allowed to grow, but failed to inflict a penalty upon it for persisting in growing, and this statute of course accomplished but little good. This thistle is originally said to have been introduced into Canada by the Hessian soldiers, hired by King George to subdue the rebellious colonies. The seed was by them scattered through the State of New York, and thence over the continent of North America wherever it could be naturalized. It has probably cost the farmers of America more than will the present national debt, unless the payment be indefinitely prolonged.

The best known of the thistle family is the common thistle, *C. lanceolatum*, naturalized from England; *Pitcheri*, with cream colored flowers, found along Lakes Michigan, Huron and Superior; *Undulatum*, flowers reddish purple, Lakes Huron and Michigan and westward; *Discolor*, flowers pale purple, rarely white, found in meadows or on the margins of groves; *Altissimum*, flowers mostly purple, in fields from Pennsylvania to Illinois, and south; *Virginianum*, heads small, flowers purple, found in woods and on plains in Virginia, Ohio, and southward; *Filipendulum*, having tuberous roots, found on the prairies of Illinois and southward; *Mucicatum*, or swamp thistle, a perennial thistle, common in swamps or moist woods; *Pumilum* or pasture thistle, common in fields and dry bottoms, from Maine to Illinois and westward; *Horridum* or yellow thistle, with pale yellow or purple flowers, common along the coast, from Massachusetts to Virginia and southward; and the Canada thistle, a perennial with creeping roots, extremely difficult to eradicate on broken, stony or stumpy ground.

The leaves of this pest are oblong, the margins armed with sharp spines; flowers, rose purple. It is common in sandy, or dry uncultivated fields, East, and to a considerable extent, West. It may easily be recognized from its flowers, and from its smooth or slightly woolly leaves, and from the fact that once established it continues to occupy the ground thickly; and, also, from its habit of spreading when once established on well drained soils natural to its growth. This pest cannot be eradicated by simply cutting when in blossom, as can the biennial varieties which, springing from the seed one year, blossom and mature the next, and die after having sent out the colonies of seed to be wafted wherever the wind blows. The Canada thistle is perpetuated both by seed and from its widely creeping roots.

In vain will the Commissioners appointed by the State cut it down. Like the hydra of old fame, new heads will spring up to vex the owner of the land upon which it has found a lodgment. It must be eradicated, either by smothering with mulch, so

that nothing can grow; by sowing salt sufficient to kill not only the thistle, but all other vegetation which may be growing on the land; or else, by a summer fallow that shall allow no green thing to appear.

In fields where this pest has made its appearance it may be destroyed by planting to such crops as shall allow such thorough cultivation that no weeds of any kind are permitted to grow; for Canada thistle, like every other plant, cannot exist and form new growth if no top be permitted to remain green.

In the West, where the fields as a general rule are free from stumps, rocks, and even small stones, this is comparatively easy; but in timbered regions, abounding in stumps and the remains of logs, and, in many sections of the East, where there are rock and large stones in the soil, it is more difficult of eradication; for, once killed, the flying seeds continually find a lodgment, where they are again to be fought. The real difficulty is not in killing the young seedling plant, for once cut up it is dead; but if its branching roots have attained size and age sufficient for re-producing plants, the difficulty is greatly enhanced. The Commissioners, therefore, appointed in the West to take charge of the Canada thistle will only have done a small part of their work in having the plants cut before seeding. This will prevent the seeding of distant fields, but will not destroy the propagation in fields already infested.

We have heretofore stated that the Canada thistle did not take kindly to prairie soils, and for the reason that at certain seasons of the year the land was filled with water. Until within the last few years the pest has not made serious extension except in the vicinity of Chicago, and on particular soils. But since, by thorough drainage, these sandy loams have become quite adapted to the growth of the thistle, its progress has become alarming, especially in vacant lots, and unused streets in the suburbs. The Mayor of the city has lately had his attention called to the law, and it is hoped he will bestir himself in this direction. They may easily be extirpated by means of the police of the city, if in no other way, and it is to be hoped that individuals wherever they may find this, or indeed any other thistle growing, will use every means in their power to eradicate it.—*Western Rural.*

NEW ROSE—"JAMES SPRUNT."—This new climbing rose will be found one of the most valuable in the Southern States. In the Northern States it will do for summer exposure or greenhouse culture only. It grows to a height of six to ten feet in one season, blooming monthly.—The bud is of dark rich crimson, becoming somewhat lighter when expanded, quite fragrant. It is thought by many to be only a "sport" from the well-known monthly crimson rose *Agrippini*, but is a quicker, more vigorous grower, and is hence more valuable as a climber or pillar rose. It was raised by James Sprunt, of Keenansville, N. C., the same horticulturist who originated the famous yellow tea rose "Isabella Sprunt."—*Horticulturist.*

HORTICULTURAL.**ORCHARDS.—PRUNING AND TIINNING.**

With several years' close observation and experience, we have come to regard late Spring, and on into Midsummer, the most favorable season of the year for pruning in this latitude—varying with the season north or south. After the tree is warmed into new life from its Winter rest, the sap in full flow, and the tree fairly in leaf, the sooner the wound is made, the more readily and soundly will it close over with a new growth of wood. If pruning be done, as much of it should be, at a time when the bark slips, care should be taken against loosening it, or if loosened or bruised, to pare it off smooth. The facility with which the process of healing takes place and goes on, depends materially upon the smoothness of the rim of the wound.

Nothing like specific instruction or directions can be given in pruning. So it appears to us, for we find no operation in the care and growth of an orchard that taxes our judgment and skill more. To our mind, the subject can be spoken of only in a general way—that every one who undertakes to properly prune a tree, must, in the main, lean upon his own judgment. We would say, cut out smoothly all weak and straggling branches, and all that appear likely to rub or otherwise seriously interfere with their better fellows during the future growth of the tree. Take off all water sprouts, wherever found, whether springing up from the roots of the tree or out from the main trunk and branches.

If trees are set very full of fruit, we do not hesitate to remove some of it with the branches which ought to be taken out. What is left will be improved, both in size and quality. When branches, two inches or so, are removed, the wound should receive a thin coating of waxen liquid that will adhere and resist the effects of the weather. When pruning either orchard or nursery trees, late in the Fall, or in Winter, for cions, or for any other object, we invariably leave a stump of the limb or twig, an inch or more in length, to be shortened in close to the main stem, at our usual time for pruning. If cut close when the tree is in a semidormant state, the wood checks, the surrounding bark deadens and protracts the process of healing over.—*Horticulturist.*

There is no time when a woman so thoroughly commands the respect of a man as when she is about to throw a stone at a hen. Especially is this the case if he happens to be standing behind her, and is lame in one leg.

INFLUENCE OF STOCK ON SCION.

I have been much interested in the notices given from time to time as to the influence of the scion on the stock, and *vice versa*. In the early viney here we have a couple of Muscat Vines worked on the Black Hamburgh, and in the same house we have a Muscat on its own roots. Those worked on the Hamburgh started fully five or six days in advance of the one on its own roots, although they are nearly a fortnight behind the Hamburghs they are worked on, each of which has a rod of its own in addition to the Muscat worked on it. The stock would therefore appear to have forwarded the Muscat about a week; although I have never seen any difference in the ripening of the two, nor any effect on the fruit, yet the growth appears more robust and the leaves of better texture. In the late house we have a Hamburgh worked on Lady Downe's. The Hamburgh has shoots varying from 3 to 6 inches in length, in exactly the same stage as the other Hamburghs in the same house, while the rod of Lady Downe's filling the next rafter, on the same roots as the Hamburgh has to draw its supply of sap from, is only just starting its buds; showing clearly, in this case, that the lateness of the stock has had no influence in retarding the earlier habit of the Hamburgh.—*Gardener's Chronicle and Agricultural Gazette.*

REMEDIES FOR CABBAGE LICE.—The best remedies for this garden pest come from men who have actually experimented. We give two, which have proved successful, by gardeners. If any know of more, we would like to hear of them.

A Kentucky gardener sends the following:

No. 1.—As soon as the plant begins to head, or as the louse makes its appearance, open the leaves carefully with the fingers, and sprinkle common salt between them. This is said to be an infallible remedy. We have used it with entire success. Plants used in this way produce larger and more solid heads than those left to themselves.

A California writer sends the following:

No. 2.—Two tablespoonsfuls of kerosene mixed with a pint of water, and applied by rubbing it on the outside leaves. A couple of applications is usually sufficient.—*Horticulturist.*

RED CEDAR.—“I wish to know how to propagate red cedar from seed.” C. C. W.

“Wash off the pulp, mix the seed with sand or mold, and plant and treat like apple seed. A part will grow the first, and a part the second year. A portion will grow if planted with the pulp on, and thinly covered with leaf mold and leaves.”—*Rural New Yorker.*

For the Maryland Farmer.

THE DIGNITY OF LABOR.

BY J. J. LAMKIN, OF PITTSYLVANIA COUNTY, VA.

Labor is the great law of God's universe, and ever since the transgression of the divine law, the stern decree went forth—"In the sweat of thy brow shalt thou eat bread all the days of thy life." We read the great lessons of labor in the material world. The earth is ever making her revolutions upon her burning axis. Geological formations are ever going on, progressing in the depths of the earth, and the mineral kingdom is ever improving in richness and variety—the streams are ever flowing—the rivers and oceans are ever in motion, while the silent stars never cease to shine in the firmament above us. These philosophical truths, together with the divine law, all teach us that great law of necessity, that we must work, that we must labor in the great harvest of life.

The young man starting out, as he stands at life's vestibule, asks himself in what department shall I labor? I am ambitious, I want a wreath of worldly glory to entwine around my brow, how shall I obtain it? I hear another say, I care not for your chaplets of fame, my only ambition is to get behind a counter in a country or city store, and then I shall realize all of my fondest anticipations—but alas! many are the failures of this glove handed race, whereas if the rising generation had the nerve and industry to demonstrate the great law of life, which is *labor*, sow the wheat, plant the tobacco, plow the corn, a larger per cent. would succeed, and triumph in the great battle of life.—Among our young men in Maryland and Virginia, and I might add throughout the whole South, there seems to be a shrinking from the cultivation of the soil, as well as from mechanical pursuits, engendered by the false notion that something of humiliation and disgrace is attached to it—this is all wrong in point of fact and principle. My young friends, you who are commencing business, I ask you to pause and consider the great honor and dignity of *labor*. Who, I ask, have been our greatest statesmen and philosophers? They were those who have won their highest laurels of fame by hard and honest toil. They were farmers, blacksmiths, tanners, carpenters and printers. The names of Cincinnatus, Newton, Fulton, Franklin, and others, will readily occur to you, who will live forever upon the historic page. Let us consult the sacred oracles, and what an example of the great dignity of labor is presented before us. Paul was a tent-maker; Cain, a tiller of the soil; Abel, a keeper of sheep, and Christ, the world's Redeemer, a carpenter.

Sons of the South, awake! Throw away false pride, walk abroad into the field, already smiling to greet your coming—draw the team a field—turn up the soil as you sing merrily along the furrow, and genial harvest will crown your store with plenty.

"In the broad field of battle—
In the bivouac of life,
Be not like the dumb driven cattle—
Be like heroes in the strife."

Translated from the French.

THE CARE OF ANIMALS.

ACCIDENTS, AND MEANS OF PREVENTING THEM.

BY OUR OWN TRANSLATOR.

The manner in which drink is given to domestic animals is, in certain localities, truly deplorable. It engenders a number of accidents and maladies whose causes escape the proprietor and even the man of skill who are both victims of the imposition of careless and idle servants. It is not rare, on farms which have a watering place, or are near a brook, to see the work-hands drive indiscriminately all the animals to it to slake their thirst regardless of the season, the time of the day, or the condition of the animals. We have even seen negligence pushed so far as to break the ice of the watering place with a pick-ax, and then lead up to be watered horses still harnessed and sweating from the field.

At other times there are hirelings who, with no more precaution, carry to the manger of a very warm stable the icy water from a pond or neighboring fountain.

Again, cattle fresh from the clover pasture are left to themselves in the farm-yard, without considering that the water of which they may freely partake may be dangerous in its results. Should we be astonished, in view of so much negligence, at the frequency of colics, indigestions, abortions, abdominal distentions, glanders and so many other diseases which carry off our animals? By no means. And, moreover, it is easy to avoid the dangers to which we are exposed; for all the precaution to be taken in summer, is limited to preventing animals, fresh from work, from drinking until after they have eaten; and in winter, to moderating the temperature of the water, by mixing therein a warm liquid, or by putting the water, twenty-four hours before use in tubs, in the enclosure or stables, that the warmth may be communicated to the water. Strictly speaking, the same rule should be followed in giving large quantities of watery nourishment like beets, carrots, turnips, potatoes, etc. To do this, they should be placed, some time previous to use, in the apartment in which they are to be consumed, or one having a similar temperature. It is by attention to these different methods of feeding, so simple and so easily employed, that cultivators may be able to relieve themselves from the numerous accidents they have so frequently to deplore, in consequence of imprudence or a failure of precaution.—*Gazette des Campagnes*.

VALUE OF CORN FODDER.

Dr. Nicholls, in the *Journal of Chemistry*, says: The opinion we have always held upon the question of the value of green corn fodder for milch cows has been that when raised from broadcast sowing it is nearly worthless, but when sown in hills or in drills, and cultivated, with access of air and sunlight, it is of high value. During the present season we have made some experiments to test the correctness of these views. Stalks were collected from a field where the seed was sown broadcast, and also stalks growing in drills upon the same field, and they were dried in a drying closet to expel the moisture. Both specimens were planted at the same time (the 6th of May,) and it was found that the broadcast sowing contained ninety-two per cent. of water; those from drills, eighty-three per cent. of water. Thus it was shown that the difference of solid matter in the two was relatively as eight to seventeen per cent. The solid matter was composed of starch, gum, sugar and woody fibres. There was almost an entire absence of sugar and gum in the stalks from the broadcast sowing, while the stalks that had grown under the influence of light and air held these nutrient principles in considerable quantities. The stalks were collected at the period of growth just before the ear begins to form, a period when most farmers begin to cut the fodder for their cows.

Our experiments upon corn fodder have afforded us important information upon other points. We find that the stalks cut before they reach a certain stage of growth are deficient in nutrient matter, and therefore it is a waste to feed them too early. The corn plant, like all other vegetable structures, has but one object or aim in its growth, and that is to produce seed. It is engaged during its whole life in storing up large quantities of starch, which is to be used when the pressing occasion arrives, or the seed vessels mature, to form by some subtle, mysterious change, the rich nutrient principles which are found in seeds. As soon as this struggle is over, the corn plant, like all annuals, dies a natural death. It is not necessary for frost to strike it; it dies from simple exhaustion. The proper time to cut and feed corn stalks is during the four or five weeks succeeding inflorescence, or in other words, they should not be cut until the flower is fairly developed, and the ear commences to form; and any corn that is so planted that the ear cannot form and mature, is practically worthless as fodder. Farmers may learn from these facts that corn designed to be cut for fodder should be planted at two or three periods during the

season; some fields quite early, others somewhat later, and still others as late as is safe. In this way, when the hot, dry months of July and August are reached, and the pastures falter, and a supply of fodder is secured at a proper stage of growth to afford the largest amount of nutriment.

LAND IN GREAT BRITAIN.

The annual value of land in England and Wales is estimated to have risen six times since 1688.—Mr. John Macdonnell, in his recently published book on the land question, tells us so; and that this rise has been going on of late is proved by a glance at the property tax returns, which show that between 1853 and 1870 the annual value of the rent-bearing of the United Kingdom, increased from £47,559,000 to £66,540,000. At the same time, even during the present century, there have been great fluctuations in rents. During the French war they rose enormously. After the peace they fell ten to thirty-three per cent. Under the influence of the Corn Laws, they again rose, to decline shortly after those measures had been repealed. From 1852 to the present time they have steadily risen. As to Urban land, a square in Victoria street lets for one pound sterling. A piece of ground in Holburn, bought in 1852 for £169, now yields £5,000 a year. A wharf in Castle Baynard, bought for £2,000 in 1670, lately realized £110,000. An acre of land in South Kensington, which was sold for £3,290 in 1852, fetched £23,350 in 1860. We are told that the price of an acre of the most valuable uncovered land in the city of London, after the great fire in 1660, was £30,000, or about one-third of the value when built upon. At the present time, the highest rate for such unbuilt land may be taken at £1,000,000 an acre, and such value constitutes fully three-fourths of the value of the property after it has buildings upon it.—*American Land and Law Advisor.*

MUZZLING CALVES.—In England the death of young and valuable calves occurs, and is attributed to their having sucked and swallowed straws. It is now a practice with some herdsmen to muzzle the calf as soon as it can stand, with a leather muzzle made of a half dozen pieces of leather straps, crossed, and secured at the top by a circular strap and fastened by another strap passing over the ears. These muzzles are kept on until the calves are two weeks old.

SCOKE OR POKE ROOT is recommended as a preventative of what is called "horn-ail" by a "doctor," who says: take a piece the size of a hen's egg, grate it finely, mix with bran and a little salt and feed it.

THE
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MICHIGAN AMBER WHEAT.—Mr. J. C. Durborow, 55 Light Street near Pratt, exhibited to us specimens of this splendid variety of wheat. The heads were very long, and well filled with large heavy amber colored grains. They were the most magnificent heads we ever saw, and are said to be a fair specimen of the whole crop of 100 acres. It was grown by Mr. W. Ward, near Cecilton, in the famed Sassafras Neck, of Cecil county, Md. It has so far stood the winter better than any other wheat in same neighborhood, and has proved free from all disease. It must be a valuable and heavy yielding variety. Not having been threshed, the yield is not ascertained. Mr. Ward cut one hundred acres in four days and a half, as a neighbor of his informed us, with a Kirby Reaper bought of Mr. Durborow.

THE JULY AGRICULTURAL REPORT.

The July agricultural report has just been sent to press. It represents an improvement in winter wheat, but a decline in the prospects of spring wheat on account of the unreasonable weather in some quarters, and insect enemies in others. The average in corn is increased in West Virginia and Minnesota, and decreased in all other States except Florida and Arkansas, where it remains the same as last year.

Corn planting was everywhere retarded by the weather, and in many cases has been several times replanted. Unusual complaint of defective seed is made in all parts of the country.

The condition of cotton has been previously given. The indications up to July 1st indicate a crop 89.5 per cent. of an average, not including Virginia, where the culture is yet mainly experimental.

The prospect yield of oats declined during June in the New England, Middle and Northwestern States, except Wisconsin. It was enhanced in all of the Gulf States except Mississippi.

The late winter told disastrously upon the fruit crop. The injury to apple trees was more extensive than was apparent at the last report.

Vast numbers of peach trees were killed. The condition of the grapes ranged from 61 in California to 127 in Nebraska, 100 representing an average. The average in potatoes remained the same as last year, or increased in twenty-two States and decreased in all the others.

The Colorado beetle has extended its ravages eastward, being reported for the first time in several counties of New York. It was still demonstrating in the West, but the farmers had learned in many counties how to destroy it effectually.

The maximum condition of the crop, 111, was found in Georgia; the minimum, 76, in Delaware.

ENQUIRY ABOUT GRAPES.—A correspondent from Monroe county, West Virginia, states that his grapes are planted on a south hill side, clay land; the vines are healthy, and grapes plenty, but rotting badly, fears he will lose all. "They seem to be stung by some insect, and in a few days rot and fall off or dry up." He desires to be informed what is the cause, and the remedy, if possible. If any of our friends can give the desired information they will confer a favor on us, and grape-growers in general, by so doing. We shall ourselves try and learn something more of the matter by next month's number of the *Maryland Farmer*.

MEETING OF THE FARMERS' UNION OF
BALTIMORE COUNTY.

We present below a report of the proceedings of the Baltimore County Farmers' Union, which appears to be a coming together of the members of several local organizations for more extensive and effective action. The speaker calls attention to three modes of combination among farmers: The Visiting Plan; The Patrons of Husbandry, and the Lyceum or Permanent Plan, without indicating his preference, or drawing a comparison of relative merits. In an elaborate paper in a previous number of the *Maryland Farmer*, the author of Jakobb Dunk Papers discussed the various features of agricultural organization, and he also instituted no comparison of merits. We should be pleased to see these different modes of co-operation discussed, with a view of ascertaining by what means we can accomplish most for the farmers' welfare.

The Farmers' Union of Baltimore County, met, as announced, on the 14th of June, at Duncan's Hall, and organized about 3 o'clock, P. M., the president, S. M. Rankin, in the chair. There was present fully double the number of persons that attended the first meeting, representing the 8th, 9th, 10th and 11th Districts. In addition the meeting was honored with the presence and counsel of Samuel Sands, Esq., whose name has for near half a century been so usefully and honorably known to the agricultural public of the country, as well as with the presence of D. Lawrence, Esq., of Howard county, a going, able and earnest champion of the best interests of the farmer, whose reputation is by no means confined to the limits of his county or State.

The chief business before the meeting was to receive the report of the committee on the constitution and address. This committee reported progress, and at their request both matters were referred back for amendment and completion, with power to publish the address at their option, and with instructions to report finally on the constitution at the next meeting.

Mr. Lawrence, on being introduced to the meeting, after some preliminary remarks spoke in substance as follows:

In the olden times the farmer could look upon himself as independent—his summer garments were made from flax, his winter ones from the backs of his own animals. He was not troubled with the cumbersome machinery of modern agriculture; he constructed with his own hands the few and simple appliances he needed. Then he was independent, but now all that has been changed; from early dawn to dusky night he handles implements made by others, and made under their restrictions. They put their price upon their productions, and limit the supply by arbitrarily limiting the number of those who shall acquire their skill. So we are a prey to their action. If we were combined we could counteract their combination without affecting them or ourselves seriously. But the

tradesman says it would not do for you to fix the price of your productions, or limit your supply, for he cannot do without them. As things now stand who is the more dependent the farmer or the tradesman? It appears we can get along as well without one as without the other.

To meet the difficulties we labor under we must counter-combine or remain a prey to oppressive exactions. There are three modes of combination: First, the visiting or social plan; second, the organization known in the West as the "Patron of Husbandry." In that section the farmer has stretched forth his stalwart arm, and before its uplifted might political harkers have slunk in terror away. There, in driving the political vampires from the field he is doing a pure and noble work, which we trust will be continued until he has created a system permeated by a spirit as honest and true as the faithful soil in which he delves. Third the Lyceum, with its advantages of lecture room and library as a nucleus of a more general character than the local club. He considered the local clubs indispensable, but to be effective they must be numerous, and their united efforts directed against a common enemy. The laws which operate against us must be changed, and new ones to secure and enlarge our protection must be framed. In his, Howard county, the farmers suffered from the same iniquity in weighing hay, complained of here. Besides this, the farmer needs and should have protection in raising sheep, and he must have an improved system of roads. These are matters of urgent importance, and though we have had so-called representatives in the Legislature for generations, there has been in the matter of roads little or no improvement; it seems to be nobody's business to give us good roads. By combining the farmer can have his own agents at Annapolis to act for him. After these more immediate grievances shall have been removed, organization will stimulate to other steps of reform and progress. Organization with its one ponderous weight is the principal point. We should remember the lesson the old Roman gave his sons in presenting them a single stick to break, and then a bundle of them. Singly, the farmer has been and is being broken upon the wheel of traffic; united, he could have at his control a formidable power with which he could command respect for his rights. The farmer is arousing from his indifference. Such activity as is now apparent throughout the length and breadth of the land is unparalleled. The movement would be successful. He must expect to encounter the heat and dust of summer, and the sleet and hail of winter, but in the end his well directed efforts would sweep moral, social and political depravity from the land.

Mr. L.'s address was delivered with oratorical power and effect, of which this sketch can convey but little idea. He infused into his language an earnest fervor which fascinated his listeners and chained their attention.

After the transaction of other business incident to the incipient stage of the "Union's" growth, the meeting adjourned to assemble on the 21st of June.

THE United States has become the leading cheese-producing country in the world. From an exportation of 1,000,000 pounds in 1852, the amount rose to 60,000,000 in 1872,

GUNPOWDER AGRICULTURAL CLUB.

We give below a report of the proceedings of a Baltimore County Farmer's Club—conducted on the "visiting" plan referred to in another column of the *Maryland Farmer*, as an indication of what the enterprising people of that section are doing, and to show how to proceed in similar organizations which are now springing up throughout the country. Let their number multiply. We copy from the *Union*.

On Thursday evening of June 5th, the regular monthly meeting of the Gunpowder Agricultural Club was held at the residence of Aquila Matthews. Mr. Matthews owns a fine farm on the York turnpike, about eighteen miles from the city and three-fourths of a mile from Spark's station, N. C. R. R. Joshua Gorsuch was made Foreman for the occasion. The proceedings of the last meeting held at Mr. Matthews' residence were read, as also those of the last preceding monthly meeting, which was held at the residence of Joshua Gorsuch. The subject discussed at the last meeting held at Mr. Matthews' was "At what stage should the rye, oat and wheat crops be harvested?" The minutes of the proceedings showed considerable information among the members upon this subject. At the meeting held at the residence of Mr. Gorsuch in the month of May the proceedings were of a general character, the discussion being carried on in a familiar conversational way. The topic there discussed was the relative merits and advantages of shallow and deep plowing. The minutes of the proceedings revealed an experience and knowledge that was truly interesting and instructive.

A stroll over the premises brought to our view a number of objects of interest. In the poultry yard we had the pleasure of seeing fifty-nine young ducks that were beauties in their way. They looked healthy and seemed well cared for. The poultry house and ice house demonstrated that their owner has an eye to business. Pursuing our journey we were conducted to a field that last year was infested with a forest-like growth of Canada thistle. This is now plowed, a part of it planted in corn, and the balance, where the thistle were most numerous, was ready for the planting of potatoes.

On our return to the mansion we were invited to supper, where we found a generous board amply supplied with a most bounteous repast, to which every member did ample justice. This part of the programme reflected high credit upon the culinary skill and taste of our hostess, as was manifested by the unquestioned appreciation that each gave it.

The subject for the evening's discussion was, "Can we make green manuring beneficial to the soil and by what means?" The discussion developed a vast resource of information concerning this portion of farming, to which no one could listen without interest.

The subject for the next meeting is "By what means can we increase our stock of manure to best advantages for agricultural purposes?" The Club adjourned about 9 p. m. to meet July 5th, at the residence of Abraham Scott, Esq.

FARMERS' UNION.

We copy the appended remarks from the Towson town *Union*, and commend them to the consideration of our readers. Why should not these local neighborhood clubs spring up over all Maryland and the South, when experience has demonstrated that if farmers accomplish anything in the way of public success, it can be done only by combination?

"We are very much gratified to find our farmers waking up to a sense of their interest and duty. They have certainly been asleep long enough. It is quite time they had aroused from their lethargic slumbers. This is an age of organization. The progress of events demonstrate that all interest that really understand their business work their way to recognition and success by a complete, thorough and efficient organization. This seems to be the law of progress in our latter day. Æsop saw its utility ages ago, and illustrated it by the use of the bundle of sticks.

The grain and commission merchants of the large cities have their unions or organizations for the purpose of advancing their own interest and controlling the price and manner of buying produce. They have their regular meetings. They have their modes of operation fixed by certain rules and regulations. They are in hourly communication with all parts of the country, and have the facilities of the telegraph to keep them posted upon the rise and fall of grain. The farmer who resides twenty or thirty miles off, who gets a mail once or twice a week, and who has no other means of ascertaining the price he should ask for his produce, works at great disadvantage when he brings his productions to market. To counteract these disadvantages as far as possible, the farmers should have their organizations, and operate through them to promote their interests.

It is true there seemed to be but one object in view in the call which brought the meeting together. But if a "Union" is formed, and the farmers of the county take that interest in it they should, there will be others of more vital importance brought to its consideration. It will be a pebble thrown into the middle of a smooth lake. It creates a ripple that widens and spreads in every direction until it reaches the shore. So it will be with the "Farmers' Union." There are scores of questions now awaiting its attention and solution. It will be astonished at itself when it once gets into full blast that it has the power of doing so much."

WATER CURE FOR FOUNDER.—A correspondent of the New York *Tribune* cured a bad case of founder as follows:—In the first place, I physicked him; then I took a tight, strong box, got his feet into it, and poured boiling hot water into it, as high as the hair on his feet, and in ten or fifteen minutes he was able to stand on his forelegs without the assistance of the tackle. I kept up this treatment for thirty-six hours, when he was able to go about and help himself. In a few days I had his shoes put on, and in less than a fortnight more he was able to work as well as ever.

For the Maryland Farmer.

BALTIMORE COUNTY.

As the farmers of Baltimore county were agitating the question of organization, and as we were between grass and hay, on our own farm, we took advantage of an invitation to be present at a meeting of the farmers of Baltimore county, held at Duncan's Store, in the eighth District, 14 miles from the city on the York road.

This section of our State is worthy a brief description for the benefit of your readers who have not been favored with an opportunity for personal inspection. It is the wealthiest district of the county, away from the immediate vicinity of the city, and is particularly noted for its iron manufactures, the largest works in the State, the Ashland Company's being in this district, under the able management of Colonel Franklin. This company has three furnaces in operation, and runs out 350 or 400 tons of iron per week. One mile and a half from the works are the marble quarries of the Messrs. Connolly, and the Maryland Marble Co. of Baltimore County, which furnished a large portion of the marble used in the construction of the City Hall of Baltimore city, and the Capitol at Washington. In the immediate vicinity of these works—on the York road, and 12 miles from Baltimore—are the famous lime quarries of Texas, celebrated over all the State for the excellence of their product, which contains only half per cent. of foreign matter. It is doubtful if any better lime is manufactured. Formerly the lime supply of Baltimore city was derived entirely from these quarries, but the use of oyster shell lime for building and agricultural purposes has rendered the employment of stone lime less imperative. The lime for building purposes is made in perpetual kilns; those in which the fuel—coal and wood—is not in contact with the stone; these kilns are known as "draw kilns," and the fire is never allowed to go out, being kept up in chambers outside of the "stack," or building which contains the stone. The annual product of these kilns, probably 50 or 60, is estimated at one million bushels. Agricultural comment upon the magnitude of this business is unnecessary.

The Warren Cotton Manufacturing Company, and the Phoenix Manufacturing Company on the Great Gunpowder Falls, both large class mills in full operation, are also in this vicinity. On the same stream, and midway between these two mills is perhaps the largest paper mill in the State, owned by Wm. H. Hoffman; the paper for our city newspapers being largely manufactured at this place. Adjoining the lands of Wm. Webster—Secretary

of the State Road Committee, Corresponding Secretary of the Farmers' Union, &c., &c.—is the Matthew's Flouring Mills, with four run of stone, using sometimes nearly 100,000 bushels of wheat a year, and obtaining 60,000 bushels of it in the neighborhood. A plow manufactory and saw and grist mills are also in operation in this region. This district represents a variety of soils, and includes a limestone valley of superior excellence, and inferior to none in the county. The larger portion of the soil of the district is composed of gneiss, or rotten rock, which is a union of felspathic rock and hornblende, the latter containing 12 per cent. of lime, and the feldspar 8 per cent of potash. To such of your readers as may not be acquainted with the value of the elements of soils, we will state that a soil of this character is the most valuable for agricultural purposes. A portion of the soil is micaceous, and is naturally deficient in lime this kind of soil is light and porous, but when limed, and judiciously cultivated and fertilized, is easily worked, and becomes highly and remuneratively productive. Situated in this section are the farms of Wm. Webster—favorably known throughout the county and State as the champion of farmers' rights against oppression and wrong—the Messrs. Jessop, Worthington, Bosley, Matthews, Gorsuch, Price, Captain T. Love, and John Merryman, (Hayfields,) ex-Treasurer of Maryland, and formerly President of the Maryland State Agricultural Society. Captain Love has a beautiful location, and a large farm. One of his meadows will carry a cow per acre during the grazing season. The dairy business is assuming considerable importance among the farmers of this section, and the Captain, as a successful dairyman, has proved that the enterprise will "pay." He is experimenting with the famous forage plant, lucerne, and we hope will give your readers the result of his efforts. We have heard that three of these gentlemen named have raised over 20 barrels of corn per acre, and that some of this land has produced (60) sixty bushels of wheat per acre. The wheat, rye, oats and grass were looking good, and gave promise of fine results. The corn was good, but had been much injured by the cut and wire worms. As our eye did not rest upon every farm in the section, we can only specify as results of good cultivation the wheat crops of Messrs. Worthington, Bosley and Merryman. The general appearance, however, of the wheat crop is far above the average. The view from the highly cultivated and elevated residence of John J. Night, is especially attractive, the "tower" of the "seat of government" at Towsontown looming up above the trees of the forest in the distance.

For the enterprise of its people, led on by Dr. Merryman, Messrs Rankin, Gorsuch, Webster and others, for the hospitality of its people, for its fertility and beautiful scenery, diversified by placid lake and gentle river, and green hill-side, for the polish of its rural life, and the excellence of the results of the processes employed, commend us now and hereafter to the eighth district of Baltimore county.

As your correspondent in this section will no doubt forward you an account of the proceedings of the farmers' meeting alluded to in the beginning of this letter, I forbear to trespass further on the patience of your readers.

Yours, truly, JUDEX.

AKRON.

During our whole trip with the Editorial Association we saw no place we liked better than this thrifty little town—and made up our mind if we ever left Baltimore, we should prefer this busy place over any inland town we know of.

Akron, Summit county, Ohio, situated on the Cleveland, Mt. Vernon and Delaware Railroad, and on the Atlantic and Great Western Road, is one of the most promising cities in the favored region of northern Ohio. In the early days of the embryo city its inhabitants devoted their capital to the milling interests, the waters of the Ohio, and the Ohio and Pennsylvania Canals furnishing a motive power sufficient to run several large and prosperous flouring mills. When the railroads were projected, and an opening made with the outer world, the citizens with a true regard for their own interests saw that if a city of any size was to be made amid the hills and the valleys of Summit county, their attention must be turned to manufacturing, and every aid and assistance must be given to any enterprise that would bring to their boundries the hardy sons of toil and their families, and as a result the Akron of to-day, besides her mills, lays claims to being one of the largest manufacturing towns in the State. Aside from the advantages of her water privileges, and her manufacturing facilities, Akron is blessed with a bountiful supply of coal. Which lying at her very door, gives an impetus every year to her trade, and the 500,000 tons of coal that are yearly taken from out of the earth brings back in return wealth to enrich her sons. In Summit county is also found a clay in large quantities which is used to make the sewer pipe which is found all over the land, and which is manufactured in the city limits.—

Fire brick jars by the million gallons, and pipes are also made, all serving to give to Akron a name

and reputation, and adding largely to her business ramifications. Among the principal manufactures of Akron is the Mower and Reaper Works, of which there are two, the Excelsior and the Buckeye. Here are manufactured the Excelsior Reaper and Mower, whose fame has extended not only over the whole of this country, but its merits are known across the broad Atlantic, and car-loads are yearly shipped, which do their work on the fields of Europe. The Excelsior is manufactured by the J. Y. Seiberling Co., J. Y. Seiberling, President; J. J. Wagoner, Secretary and Treasurer; Charles Miller, Superintendent, whose shops are located in the heart of the city; 175 hands are employed there constantly, and from the rough machine after machine is turned out at the rate of thirty per day. Mr. Seiberling, the inventor of the Excelsior, is still a young man, and he is constantly at work adding new and better improvements to the machine which has brought not only wealth to him, but to all who have been connected with him and to the city that is proud to call him its adopted son. The sale of the Excelsior is immense, and its fame as the best mower and reaper manufactured is rapidly spreading.

The Barber Match Company is also located here, and is doing an extensive business. This establishment commenced business in 1847, in what was then called Middlebury, but which is now the 6th ward of Akron. The company a few years since, finding their facilities too cramped, erected in the southern portion of the city a brick building 185x55, two stories in height, with one wing 45x50, and another 55x100. Here are turned out 800 gross of matches per day, 175 hands being employed, the capital invested being \$100,000. This firm deal also in shaker pipes, which are made from the clay found in Summit county, and they ship of these 4,000 boxes per month. The officers of this company are J. K. Robinson, President; O. C. Barber, Secretary and Treasurer, and J. Hopkins, General Agent, H. H. Palmer, Superintendent. The same firm are also engaged, under the incorporated name of the Hopkins, Robinson Manufacturing Company, in manufacturing the Excelsior Animal Poke, a new invention for preventing cattle from jumping fences. They occupy a brick building, 62x36 feet, three stories high, and will this year turn out 40,000 pokes. Akron has besides these mammoth establishments—ten flouring, barley and oat meal mills—a rolling mill, capable of turning out 20 tons of iron per day. A blast furnace, (not yet in operation.) A steam forge, making ten tons of iron daily.

Stoneware Potteries, making yearly 5,000,000 gallons—two Oil Refineries, one Chain Works, one

Rubber Works, one Manilla Paper Mill, and one Straw Board Manufactory, two large Machine Shops, one Boiler Shop, and other manufacturing interests which tend to increase the wealth and prosperity of the city.

Beautifully located on rolling ground, with two railroads already entering its borders, and a third the Valley Road, now in process of building, with a bountiful supply of water, and inexhaustible fields of coal. Akron to the capitalist presents unsurpassed facilities for investments, and with her Buchlet College, now in its first year, and its unsurpassed school facilities, Akron, to the wanderer in search of a home, offers rare inducements. Her prosperity cannot be measured. Her citizens appear to possess the requisite amount of enterprise and capital to make the city prosperous, and in ten years we should not be surprised to see her a city of 25,000 inhabitants.

W.

LETTER FROM MR. DUNK HIMSELF.

ON GATHERING BONES AND SUCH.

NUMBER THREE.

Mistur Editur Maryland Farmer:—I told you about the way the Joodge scared my little Jakey with his big pile of bones; this time I will tell you how he gits 'em, and you kan joodge whether that's a fair way for a man to act in any community.—Once I went up to the Codge to get a leetle tobaker—nothin' else, no matter what *he* says—when I saw this notis stuck up onto the store door:

PARTICULAR NOTICE FOR BOYS.

I will give one cent per pound for all bones delivered at my farm, one mile from this place, on the road to the Landing.

And it signed by the Joodge's name; now, what was the konsequence to the community? Why, it set the boys afire; there wasn't nothin' talked about in school but a cent a pound fur old bones, and when school was out away tha went, forgettin' that lernin' to rake into all the old fence corners where people had dragged their carrion, out onto the old fields where critters had been killed or starved, and into the pines where ole hosses and kows had been sleepin' peacefily for a gineration or two. I never see boys workin' so industrious.—Peers to me if you want to git work outen boys, jis set 'em to carryin' out some foolish idee of the Joodge's, or somebody else, and thall'll work night an' day fur it. Them boys was up early in the mornin' and late at night. You could see 'em goin' across the fields from all parts, with bags and baskets, an' wheelbarrows, an ole hosses and ox carts, filled with all manner o' nasty stuff fur 'im. Wun o' them boys, that peered to be a ringleader, was goin' to school wun mornin' with a crowd, and he seed me a plowing with mi three critters fur potatoes, and what does he do but holler out:

"Say, Dunk, wen ye goin' to git through with them thar krow-bait ye got hooked to the plow?"

Wan't that respecful, Mr. Editur? Another one he hollers out,

"I'll give ye half a cent a pound an' take 'em standin';" kordin' to his kalkerlation, he didn't low anything fur skin and fat; up speaks another one, an' he says:

"You'll have to git 'em putty quick at that price or else *karry* 'em down."

I was gittin' powerful wroth at sich treatment, I kin tell you, wen up jumps another one onto the fence—thera tha was about seventeen ov 'em strung all along the fence, makin' thar komments—an sez he,

"Anyhow, there's a morgige on 'em."

Then I speaks up, and sez I, indignunt:

"Who's got a morgige on them thar critters?"—and what does he do but say,

"The buzzards!"

And with that thal sets up a laugh, and I picked up a stone and lets it fly, but laws, who could ever reach a schule boy with a stone, ef he had any idee of the situation, an' away tha went skreemin' and makin' fun o' spectable pleeple. Why, you couldn't hardly git into the school-house fur them boys, an' the teacher actually had to put his desk to windward ov 'em. Ef any ov the nabor's stock got off its feed, judging by the number of inquiries after its helth, you'd a thought the President o' the United States was sick.

One time one ov mi kows got on the lift out into the pines when she was kalvin', an' I bleeve them boys sent a committee to look at her every fifteen minutes o' the day, to see when she was dead, and after school I heerd a great ranggling, and went up on the hill where the kow was, and there was half the school havin' a fight about who was to have the ole kow, and she not dead yet.

There's no tellin' how menny helthy, innosent brutes was killed by wicked boys around the kounty jess for wot they'd bring, and that an't the wust of it, fur the boys didn't save their money an' give it to their poor fathers, wot's workin' hard all day to keep 'em in bread, an' give 'em an education; tha spent every cent of it in paper collars and fire-crackers, and one nite about nine o'clock tha waz about forty horses tied all along the fence, up at the Codge, and as times was very high inside, a raf-fin' fur turkeys an' other things, of course nobody was watchin' the horses, when wot does these boys do but tie a bunch of firecrackers on the fence under every horse's nose, connect them by a long fuse, and set them afire, and as the fire reached every horse, he broke away, and they all went off in rotation like, and just as each hoss went there was a pack o' crackers tied to each one's tail, an' set afire at the rite time, fur there was boys enuff on hand fur the job. Away went them hosses; some with waggons, and some that brought 'em went away without 'em. Some took thar saddles and bridles along, and some konkluded they could make better time without either; some went up the road, an' sum went down; some whose tail pack went off first jumped over the fence, and kep' rite on that way; sum turned the fust rite-hand korner, and sum took the left-hand korner, but whichever way tha went tha never changed thar mind from the start, and kum back again: tha kep' on, and took their music with 'em to help 'em git thar quick. We wot was inside heard the airth shake, an' the fence a breakin', an' thought it was a hail storm, but when we got to the door, and see the fire and heerd the noise all along

the fence, and see the critters rushing by—fur it was dark as pitch—each one of 'em apearently a fire, we took it to be an escape of menagerry, or the end of all things—an' not a boy to be seen, but when we come to look after the horses, an' found 'em gone, an' knew them critters that was afire was them, an' tha off across the country nobody knew where, nor how much, if alive, then, sir, ef you'd a heerd the resolutions we passed you might a kalled it an indignation meetin', an' just then it thundered and lightened, and the rain began to kum down as if to make up fur lost time, an' do it all up at once to go to a party next day. Then, sir, we doubled the resolutions, and appointed another day to work 'em out, fur we knew one day could not do justice to our feelins.

All along that road, and around that county, you could a picked up for a month or two, ole spokes, waggon tires, rings, straps, bits, buggy tops, glass, nails, molasses, (fur the horses was loaded with the purchases ready for a start home, when the rafflin' was over,) a varied assortment of hardware an' crockery, whisky bottles without number, hoss-shoes (tha didn't even wait to put thar shoes on,) kalikoes, and dry goods generally, but mostly wet ones, several tinware, a few vinegar, a few artikles to give it color like ink, a specimen of everything usually found in the hilly original rural districts and such.

Now, ef sich things is what the Joodge calls "in the line of the development of our aggrikultur," we'd better go without developing. Moreover, I've heerd it sed that he sed, "served 'em rite, fur ef tha'd all been in the bosoms ov thar peecefil families it wouldn't a happened." Ef everybody'd stay at home, nobody'd git killed a travellin', which kan't always be did, I kin tell 'im, and more too in my nex.

Yours, hily indignunt,

JAKOB DUNK.

DRILLING WHEAT.

The *American Home Journal*, Rochester, N. Y. says:—"They are disputing in the West, says a Pennsylvania exchange, whether the wheat will stand a hard tug in winter better when it is drilled than when it is broadcast. We have never heard of any such a debate in this part of the country, nor can we imagine how there can possibly be any difference worth speaking of. Yet some say that the drilled suffered much more. Most probably the difference was owing to some other circumstances. The soil might have been drier, poorer, or the aspect might have been colder; and the result attributed to the mode of planting. Here we regard the drill as the best of all. The plants are more regular. Each has its own share of food; instead of crowding others in some places, or having it all to itself in others. Indeed, those who do not use the drill, as a rule, do not do so because they have no faith in it, but generally owing to some circumstance which they cannot control."

WEAK EYES IN HORSES.—The Kansas *Farmer* says, bathe the eyes five or six times a day with one ounce of tincture of arnica in one pint of water.

WHEN SHALL WE CUT WHEAT?

BY GEO. GEDDES, FAIRMOUNT, N. Y.

An article on this subject, clipped from an agricultural paper, has been sent to me, with a request that I would give, through *The Tribune*, my views upon the important and seasonal question.

The writer of the article says: "Our practice is to cut the grain as soon as the *earliest* part of the crop has passed from the milky into the doughy state. By placing a kernel of the grain between the thumb nails, and jamming it down, the true time of cutting can at once be ascertained. If the milk flows freely it is too early; but if the kernel mashes into a doughy consistency, showing a particle of milk, then is just the time." I think the test proposed is just the way to find out that a wheat crop is not yet ripe enough to cut. The *earliest* part of the crop will generally arrive at the stage described long before the latest part is out of the milk. This year wheat is so uneven in its ripening that the *earliest* portion of some fields will be so ripe that considerable loss will be suffered by shelling of such parts before the latest can be cut, and not have the grain shrink—to its great injury; furthermore, by far the greatest part of the present growing crop is in this backward condition. In fact the present crop is all the proof needed to show that no general rule can be applied. If a man had but one acre, or a crop so small that he could handle it all at just the time that he might select as the best, then, perhaps, some general rule might, in some seasons, be applicable; but it would be very difficult to get our best and most experienced wheat growers to agree as to what was the proper condition as to maturity of wheat in which to cut it, but most of them would say that it was after the mashed kernel would show the least particle of milk, not only of the earliest part of the crop, but of the great body of it.

The point aimed at by the farmer is to secure the greatest practicable reward for his labor, and to this end he will inquire as to how he is to secure the greatest number of bushels of merchantable wheat; for experience has taught him that the buyer will not pay one shilling more for his whole crop if he cuts it with view of having it make the most choice grade of flour, than he would if he cut it solely with a view to the greatest yield.—Varieties of wheat vary much as to shelling if a little over ripe. The White Flint, that we generally raised before the midge visited us, might stand until it was very ripe without loss from shelling. The Soules wheat was, in this particular, quite unlike the Flint, and, if allowed to become even fully ripe, would shell badly, and the varicties now most raised will shell badly unless cut a little before perfect ripening has taken place; and farmers who raise large crops are forced to cut some wheat before it is really at the proper stage, and before they finish the harvest some will be over-ripe, and some will be lost by the shelling. The point aimed at by most growers will be to get the crop into the barn with the least labor and the least loss. When the White Flint was most raised in New York State, many farmers would allow their crop to become so ripe that they could cut and draw it the same day. The grain would be hard and the straw

quite ripe, with only now and then a green joint near the ground, and no grass or weeds cut and bound with the wheat. In this way much labor was saved in stooking and handling in bad weather. But this practice generally went out of fashion when the midge came and destroyed this valuable variety of wheat, and now wheat has to be put in stooks, and if the weather is bad, many days often intervene between cutting and housing the crop; and often much labor is required in resetting blown down stooks, and turning wet bundles, and sometimes in opening the bands to get them dry, and then binding again. The leading object of the grower is, all the time, to secure his crop as soon as he can with the least cost and loss, and no general rule is of universal application; and no one can give on paper any general directions that will enable a person without experience to adopt the wisest course; and even men of the greatest practical knowledge will differ in regard to the best way of harvesting and taking care of a crop of wheat but such men will agree in not cutting the crop so green that there is danger of the kernels shrinking.

As to improving the straw by early cutting, it is proper to say, that in cases where but few acres of grain are grown, the straw is often a matter of considerable importance, and its value may justify the labor that will be necessary in stooking and caping and taking care of the crop during the four or five days of good weather that will be required to fit it for the barn, and to take the hazard of the bad weather that may intervene while the curing is going on; but in such a case, a little shrinking of the grain will be a greater loss than will be compensated by the improved straw. Wheat raisers generally pay little regard to the straw, except as it is necessary to bear the heads that hold the grain, and the less straw in proportion to the grain the better they are suited, for light straw with heavy heads costs less to harvest and less to thresh, and straw is raised only to have grain, and the men who raise from 20 to 100 or more acres of wheat every year care much less about the straw as an article to feed stock than men who raise from 1 to 4 acres.

The safest general advice that I can give—is to the proper condition of ripeness of wheat for cutting—in instances where the owner has help and time so at his command that he can govern the case, would be: select that time that will secure the crop as ripe as it can be, and not have the grain shell in handling. By so doing, I think the greatest number of bushels will be secured at the least cost, and the least time will be required between cutting and housing, and thus the greater safety against bad weather will be secured. I have seen so much wheat sprouted while curing in the stook, that it has become with me a very important point to get wheat into the barn as soon as practicable after it is cut; and to this end I do not cut as early as I would if I knew, as the men of California know, that there will be no rain during all harvest and threshing time, but I would in no case start the reaper so promptly that the kernel would shrink because of early cutting. After all that has been said, I must repeat the assertion, that nothing but actual knowledge derived from experience, can guide the grain raiser in forming his judgment as to when he should begin his har-

vest and how he shall conduct it, so as to best avoid the dangers of being either too soon or too late at the crisis in the business of the whole year.

WHEN WHEAT SHOULD BE CUT.

There has been some diversity of opinion as to the best time to cut wheat, judging from the common practice of farmers. It is generally cut when dead ripe, or at least when the grain has become hard. This is no doubt an error, and one of more importance than many suppose. It should be remembered that wheat is composed of gluten, starch and bran. Gluten is the nourishing quality of the grain, makes the flour stick together in the hands of the baker, and gives weight to the grain—and there is the greatest quantity of gluten in the grain just when the straw is yellow two or three joints from the ground, the head turns downward, and you can mash a grain between your thumb and finger without producing any milk. It may therefore be set down as an indisputable truth that every day the wheat stands after this stage of its ripeness, the gluten decreases in quantity and the bran increases in thickness.—*Germantown Tel.*

The above on cutting wheat was intended for the June number, but deferred by negligence.

MARYLAND STOCK IN TENNESSEE.

The editor of the *Rural Sun*, describing the stock of Major C. Browne, near Nashville, and speaking in high praise of his Devons, which are for sale, says they were bought of Gov. Bowie, of Maryland, and remarks that there will still remain on the farm six fine heifers, and the bull, "Archer." We are pleased to say that these six fine heifers and the bull, *Archer*, were, sold by Gov. Bowie to Major Browne. It is very complimentary to the Governor to have his stock so lauded and valued in the South, and shows that old Maryland is renovating the exhausted breeds of stock in the South from her breeding studs, and her splendid herds of Durhams, Devons, Ayrshires and Jerseys. There are as fine and high bred specimens of each of these breeds in Maryland as are to be found in any State of the Union. So our Southern friends can always be accommodated when they wish to improve their stock of cattle, horses or sheep,

HOW TO CHOOSE A GOOD COW.—A writer in the *N.W. Farmer*, says:—The crumpled horn is a good indication; a full eye another. Her head should be small and short. Avoid the Roman nose; this indicates thin milk, and but little of it. See that she is dished in the face—sunk between the eyes. Notice that she is what stock men call a good handler—skin soft and loose like the skin on a dog. Deep from the loin to the udder, and a very slim tail. A cow with these marks never fails to be a good milker.

ESSAY ON THE CULTIVATION OF COTTON.

Col. S. S. Cooper, of Granville county, North Carolina, delivered recently before the Central Agricultural Society, the following brief essay on the culture of cotton:

From what experience I have had in growing cotton, I would recommend the land to be broken up as early as possible with a two-horse plow—say 8 or 10 inches deep, so as to turn under the stalks, and let them rot properly.

Then, about the middle of March, plough it over with a one-horse plow—Watt's A. B. plow, which I think is the best plow that has ever been moulded—for all purposes.

Then, if the land should be at all cloddy, drag it over with an iron-toothed drag.

Then haul out your compost, if any, and manure. Be sure to have it thick enough. About the first of April lay off your rows.

If the land is thin, have the rows about 2 feet 9 inches apart—if fair, give them three feet distance; if rich land, such as old tobacco lots— $3\frac{1}{2}$ —drill the compost, and manure in the rows, and lap a furrow from each side on it, and just before you want to plant, throw out the middles, which leaves the bed fresh. If you should need any fertilizers, I would advise two hundred lbs. of Soluble Sea Island Guano to the acre.

About the 25th of April, I would advise you to commence planting. Get you a cotton opener, that any man can make after seeing one, which will only open $2\frac{1}{2}$ or 3 inches deep, and throw all the clods and rocks in the middle of the row.

Then roll the seed in ashes—1 bushel of ashes to 2 bushels of seed. It makes them drop easy and regular, makes them healthy and strong, and is a most excellent manure.

Cotton is like all other crops, you must have a stand of cotton to make a crop; and if you will sow four bushels of seed to the acre, and cover very shallow, you will be certain to get a stand. I saw a row once that was missed, and not covered at all, it came up, was a good stand, and made as good cotton as the rest that was covered.

As soon as the cotton is up, start the A. B. Watt plow, with the steel shaver, which you can run very near without covering the cotton; and very shallow with the bar to the cotton. And start the hoes to chopping out after the plow, leaving one stalk in a place about ten inches apart. A No. 1 Ewell hoe is the right width to use in chopping cotton. Then, start a Dickson sweep after the hoes, running two furrows to the row, which will sift a little dirt to the cotton, and clean the middles of the rows. When you get over that way, and have gotten it all chopped out, then start the hoes over again, chopping out the grass; and the sweeps after them in the same way as before, with the corners of the right wing turned up a little, so as to throw more dirt to the cotton—and continue to plough it, until the 10th of August, and keep the grass out.

I guarantee success to all who follow these directions, if the land is at all adapted to the growth of cotton.

POTATOES.

In your issue of March 5th, seeing two good articles on potatoes, I thought of contributing a leaf from the book of my experience to the readers of your valuable paper, in relation to the cultivation of this valuable root.

First, to grow a potato of a good quality for the table, a high, airy situation should be selected, for it is useless to attempt to grow a tuber of fine quality on a wet, soggy soil.

I should prefer to have it ploughed in the fall. I should choose a stubble or sod. If not ploughed in the fall, and as soon as the weather will permit, it should be well done in the spring after drying. Harrow well, mark off with chains, three feet between rows, and drop the seed by the dropper striking his heel down on the line about twenty inches apart, dropping in a piece of potato. This system has an advantage to bringing the roots near the surface, is nothing near the labor to dig, and will stand a drought equally as well.

I would discard all stable manure to grow a potato of good quality and avoid the rot. The fertilizers should all be minerals, for if the soil is of fair quality there will be enough humus in the soil for potatoes. On our soil *plaster* has no superior applied when the plant is breaking ground. The superphosphates will hasten the crop ten days, and avoid the rot best on my soil, but adds nothing to the bulk of tubers. The Rose and Peerless at present seems to be the ruling varieties. The Garnet Chili is a good yielder, and of fair quality and seldom rots. The Rose requires an old rich soil to be productive.

The Peerless is affected a good deal by the soil on which it is planted. On a high, dry soil the quality is good, while on wet soils very poor. For two years with me it has no superior as a yielder of fine, handsome tubers.

The soil should be frequently stirred with a cultivator, but what earthing is done should all be done at once, and afterwards all weeds pulled out by hand.

Much ink has been spilt on this subject, a good many foolish nostrums and theories recommended, but after all has amounted to but little.

Now, whatever may be the cause, I do not pretend to say, but if we can avoid the rot it is of no consequence, as for over twenty years we have not lost as many bushels, which answers very well for our purpose.

I will now give your readers these directions: Dig up your seed before the tubers are ripe, for if over ripe they will lose some of the vitality. Select a high, airy situation for your crop, but only one crop on the same soil in three years. Plant early, use superphosphates and plaster, cultivate well, use no barn-yard manure of any kind; get the crop along as fast as possible: dig early, and house in a cool cellar in heaps not too large. But there is one thing I have forgot to mention, which is, that for seed, select some of the early varieties. When the planter has adhered to these conditions he can have good potatoes and *defy the rot*.—D. L. HARVEY, in the Germantown Telegraph.

PROFANENESS in conversation too commonly passes for wit, whereas it is, in truth, a certain sign of the want of both judgment and manners.

ALLEGED FRAUDS IN GUANO—SUITS BY THE PERUVIAN GOVERNMENT.

It has been long known that frauds were committed in the sale of imported guano, and as the trade is large the frauds have been extensive and oppressive. The sales of the genuine article from the agents of the Peruvian government direct from the bonded warehouses were, for 1869-70, 35,000 tons; for 1871, 23,000 tons; for 1872, 32,000 tons; and thus far for 1873, 20,000 tons. As the genuine article is worth about \$81 a ton for Chincha and \$71 for Guanape, the trade of the Peruvian agents alone, as can be calculated, amounts from two and a half to three million dollars. The extent of the fraudulent sales may be imagined from the statement of the Peruvian agents that, of ten houses in this city engaged in the trade, six sell the adulterated article. A year or two ago the New York State Agricultural Society, through a committee appointed for the purpose, obtained a bag of Peruvian guano from each of the ten dealers in the city. Six of these were proved by close analysis to be adulterated and four were genuine. Pure Peruvian (Chincha Island) guano contains about fifteen per cent. of ammonia, in which lies the chief value of the fertilizer. The inferior article, (Guanape,) which sells at about \$10 a ton less than Chincha, contains only from eleven to thirteen per cent., occasionally a little more. The analysis of the adulterated articles referred to above, showed that they contained only from three to six per cent. of ammonia, and about thirty to fifty per cent. of an earthy matter wholly foreign to genuine guano. The publication of these facts by the Agricultural Society did not have the effect of stopping the sale of the adulterations, but the Peruvian government was roused to take action in the matter for the protection of its trade.

The Peruvian government now propose to insure a pure article of guano by testing this question before the courts, and have therefore ordered suits to be brought against five firms in New York, who are among the largest dealers: George Ricardo & Co., of No. 195 Water street; L. B. Coxe & Co., of No. 197 Water street; Geo. E. White, of No. 160 Front street; Robert C. Reeves, of Nos. 185 and 187 Water street; E. H. Reeves & Co., of No. 184 Water street. Complaints set forth by the Peruvian government are the refilling of old bags with a spurious article which have contained genuine guano, and so branded and bought from the farmers for a few cents each; the use of an imitation of the brand upon the genuine bags, which is a trade-mark of the Peruvian government.

Again, it is charged that the dealers have purchased the bags of the genuine article, emptied them and mixed their contents with an inferior article, again refilling the bags and selling the article as the genuine Peruvian guano.

The defense of the dealers is that they have never sold after mixing as Peruvian guano, but that it has been adulterated and sold as such to gardeners who prefer the mixed, at a greatly reduced price. At any rate, if there is an adulteration of the article and it is sold as genuine, it will be of vast benefit to the farming interest of the country to have it exposed.—*N. Y. Tribune.*

PUBLICATIONS RECEIVED.

THE SOUTHERN MAGAZINE, No. 1, Vol. VI.; Turnbull & Brothers, Publishers, Baltimore. We received last month this able and highly interesting Journal from the publishers, Messrs. Turnbull & Brothers, No. 8 N. Charles street, and, independent of its intrinsic merits, which should induce subscriptions from every quarter, and of the fact that it is published in this city, which should evoke a warm support by Marylanders and throughout the South, which stands so much in need of a first-class literary monthly; the publishers offer as a premium to subscribers for the coming year, on receipt of the low price of \$4.50, a copy of the superb steel engraving "The Burial of Latane," worth three times that sum. This historic picture is a fine work of art, and illustrates one of the most touching scenes of the war, in which the devotion and heroism of Southern ladies is most vividly and happily portrayed. The figures in the picture are portraits taken from life.

VICK'S FLORAL GUIDE, Rochester, N. Y. This beautiful little quarterly comes to us in numbers 2 and 3, elegantly illustrated with new designs for out and in-door ornamentation in the way of houses, vases, &c., &c., and many other pretty pictures of scenes Mr. Vick visited when in Europe. The descriptions are admirably written in a style which his multitude of lady friends will, no doubt, be delighted with.

INDIAN CORN, ITS VALUE, CULTURE AND USES. By Edward Edfield. Published by Appleton & Co., New York. For this small but exceedingly valuable work, we are indebted to the politeness of Mr. T. Newton Kurtz, 151 W. Pratt street, Baltimore, where it is for sale at \$1 per copy. We have now only time to acknowledge its receipt, but shall in a future number give it a more extended notice, and make some extracts which will, we are sure, interest our readers, who will thereby be induced to obtain the whole of so interesting a work.

THE LAZY TOUR OF TWO IDLE APPRENTICES. By Charles Dickens, ("Boz,") from Baltimore News Company. It is enough to say that this book is from the pen of Dickens to insure its being read. This is one of T. B. Peterson & Brothers volumes of their neatly printed yet cheap edition of Dickens' works. The price is so low, these valuable novels are placed within the reach of everybody.

FERTILIZERS FOR POTATOES.—In the Country Gentleman of January 16th, W. J. Pettee inquires for a special fertilizer for potatoes. I have used the following articles in different proportions, and find them super-excellent:

1. One part salt, two parts plaster and four parts of unleached ashes.
2. One part salt, two parts plaster, three parts lime and four parts of ashes; mix thoroughly and apply a tablespoonful on, or with the seed at the time of planting.

Plaster (gypsum) alone is excellent as a top-dressing. Ashes alone are always good for any crop, and potatoes want nothing better—the trouble is to get enough of them. But let W. J. P. try No. 2, and report. I have had no experience with any other special fertilizer for potatoes.

EVERY day in the week is the Sabbath of some nation. Sunday is observed by the Christians, Monday by the Greeks, Tuesday by the Persians, Wednesday by the Assyrians, Thursday by the Egyptians, Friday by the Turks, and Saturday by the Jews.

RECEIVED.

LIST OF PREMIUMS AND REGULATIONS FOR THE TWENTY-FOURTH ANNUAL FAIR OF THE OHIO STATE BOARD OF AGRICULTURE, to be held in the city of Mansfield on the 1st, 2d, 3d, 4th and 5th of September, 1873.

PREMIUMS AND REGULATIONS FOR THE FIFTH ANNUAL FAIR OF CARROLL COUNTY AGRICULTURAL SOCIETY, to be held at Westminster, on September 30th, October 1st, 2d and 3d, 1873.

PREMIUM LIST OF THE FOURTH EXPOSITION OF THE CINCINNATI INDUSTRIAL EXPOSITION OF PRODUCTS, MANUFACTURES AND ARTS. To begin on September 3d, and close October 4th.

This catalogue is elegantly gotten up, and reflects credit upon the Association. It will prove no doubt, a great success.

BEAUTIFUL CHROMOS.—We are in receipt, from Messrs. O. A. GEJUDD & CO., publishers of the *Hearth and Home* and of the *American Agriculturist*, two beautiful chromos, called "the Strawberry Girl" and "Mischief Brewing." The first named is given as a premium to every subscriber to the *Hearth and Home*, and the latter to every subscriber to the *Agriculturist*. The size of the chromos is 14x20 inches and 11x13, and were printed eighteen and sixteen times in colors. Both these Journals rank high, and are so widely circulated they do not need our commendation, although we cheerfully offer it.

PREMIUM LIST FOR THE TWENTIETH ANNUAL FAIR OF THE MONTGOMERY COUNTY AGRICULTURAL SOCIETY, to be held at Hillsboro' III., September 30th and October 1st, 2d and 3d.

LIST OF PREMIUMS OF THE KANSAS CITY INDUSTRIAL EXPOSITION AND AGRICULTURAL FAIR, to be held in Kansas City, Mo., September 15th to 20th, inclusive, 1873.

SUMATRA TOBACCO.—A correspondent of the London *Tobacco Trade Review* thus writes: "In your last issue we read with interest a short paragraph on Sumatra tobacco, and while we fully agree with your description of its general character, viz., its beautiful appearance, silky texture and rich brown color, we think your quotations are calculated slightly to mislead, for, although it is true they are correct for average parcels of various grades, yet fine selected tobacco of first quality has readily realized 5s. per lb., and even at this apparently high rate is pronounced profitable working, owing to its extreme productiveness; and we have no doubt that in the absence of fine Manilla it will soon be as much in favor here as it is on the Continent. In Holland whole parcels, varying from 100 to 400 bales of the various grades are generally sold by tender to dealers at an average price, and retailed by them to manufacturers according to their requirements; first and seconds together have realized an equivalent to 5s, or 5s. 6d. per lb. here. We think our English friends would do well to encourage direct imports rather than allow them to be diverted to the Continent, and imported from thence at increased rates. The crop of 1871 amounted to about 4,500 bales, of which nearly 4,000 bales were for direct Continental account; that of 1872 is estimated at rather less, and a very small portion is destined for this market."

Some people think happiness is in a ball-room or a theatre, some think it is in Europe, and some in Heaven. But those who cannot find true happiness at home, are not likely to find it elsewhere.

GRAPE CULTURE.

GRAPE GROWING IN THE SOUTH.

L. A. Burkhart, of Covington, Ga., furnishes Colman's *Rural World* with the following:

Is grape growing a success or a failure in the South? The above question is not as yet decided. The general opinion is, grape growing is a failure save Scuppernong. The conviction is forced upon the grape growers without a thorough knowledge of the different varieties, kinds of soil and locations necessary, and proper treatment of the vines. The Scuppernong alone is recognized (by a large majority) as the only grape worth cultivating, admitting it to be the freest of disease and most sure crop. The advantages can also be claimed for varieties of the bunch grapes—for instance, Concord, Ives' Seedling, Diana, Hartford Prolific, Clinton, Delaware, Creveling, Goethe, Keuka, Norton's Virginia and others. The time of ripening of the latter varieties is from July 10th to the last of August, and Scuppernong from the 1st of September until frost. Now, the admirers of the Scuppernong will see that they can have the benefit of some other varieties in full before Scuppernong comes in, to say nothing about the superiority of some of the bunch varieties for table use and wine.

For the benefit of those who desire to plant grapes, I will give the result of several varieties which we have fruited in our vineyard: Concord—perfectly healthy; very vigorous and productive; no sign of any disease. Clinton—healthy; productive; splendid wine grape. Creveling—moderate grower; perfectly healthy; very good quality. Delaware—moderate grower; perfectly healthy and very productive. Meramac—vigorous grower; perfectly healthy. Salem showed a little sign of mildew, but no rot; bunch rather imperfect. Diana—healthy. Keuka—perfectly healthy; fruit magnificent in appearance; flavor and aroma much admired for table use. I think it will be very profitable for market. Hartford—vigorous grower, healthy; remarkable for its earliness. Mary Ann—perfectly healthy; too foxy; not worth cultivating. Ives' Seedling—healthy; vigorous; a reliable grape. Isabella—mildewed badly. Iona—mildewed and rotted badly; poor grower. I do not think it will succeed with us. Maxatawney—excellent for table wine; perfectly healthy. Weehawken—perfectly free of any disease; fruit excellent; will make, no doubt, a very superior white wine. Goethe—the most valuable of Rogers' Hybrids; perfectly healthy and productive; excellent quality; will make, no doubt, a white wine.

We have a great many other varieties on trial; some of them are very promising. Will some of our Southern grape growers give us their experience.

Two years ago, Seth Green took from the Hudson 10,000 young shad just emerging from the egg, and placed them in the Sacramento river; and now Californians are catching shad which weigh two and three pounds, and are sixteen and seventeen inches long. A similar result has attended the stocking of the Genesee,

THE POULTRY YARD.**REMEDY FOR CHICKEN CHOLERA.**

Good rules for success in the management of fowls:

1. Good dry houses, well ventilated, avoiding draughts.
2. Keep your hen-houses *clean*, and the floor covered with ashes.
3. Whitewash inside monthly from March first, to October first.
4. Feed regularly, but never overfeed; cease feeding when the fowls cease to run for it.
5. Scatter the food on the ground when the weather will permit.
6. Feed mixed grain, or alternate, as corn one day, oats next, wheat next, etc.
7. Allow adult fowls freedom as early mornings as they desire.
8. Keep hens with chicks in small coops (well covered and dry) until the chicks are three weeks old.
9. Feed chicks morning, noon and late afternoon; cooked food morning, and grain, as broken corn, wheat, etc., noon and afternoon.
10. Mix ground black pepper with the morning food for chicks twice a week, one tablespoonful pepper for every 20 chicks.
11. Grease the hen well under the wings, breast and fluff feathers as soon as the chicks are taken off, with ointment made of lard and carbolic acid; ten drops of acid to two tablespoonsful of lard.
12. Observe the above rules strictly, and you will have healthy fowls.

If cholera should appear have the following prepared at any drug store, and follow directions:

Black pepper, one drachm; sulphur flour, one drachm; extract gentian (solid) one drachm; extract stillingia compound (fluid) one drachm. Mix. Make twenty-four pills. Give two pills night and morning for two or three days.

I have thoroughly tried these pills, and have not lost a single fowl. When my little chicks look droopy, I make twelve pills of one of the large ones and give them night and morning. I have not lost a chick except by hawks and drowning this Spring.—W. N. JUDSON, M. D., *in the Plantation.*

BLACK-BREASTED RED GAME BANTAMS.

Samuel L. Barker, of Windsor, Ct., is a very successful breeder. He says, "They are just the breed for pets, and love to be handled and taken notice of when you are among them." The cock weighs 16½ ounces, and the hen 14 ounces.

The *Standard* colors of the cock are:

Head—Very dark red. Comb, face and jaws—Very bright red. Eyes—Bright, clear, either red or black. Neck-hackle—Rich red, free from black or dark stripes. Back, shoulder and shoulder-coverts—Rich dark red. Wing butts—Black. Wing bow—Rich dark red, perfectly free from black feathers. Wing greater and lesser coverts—Metallic green black, forming a wide bar across the wing, perfectly even, well defined, and not irregular on the edges. Wing primaries—Bay on the outside web, black on the inside. Wing secondaries—Rich, clear, bright bay on the outside web, black on the inside web, with a rich metallic green black spot on the end of the feather. Saddle—Rich red. Tail—Rich black. Sickle-feathers and tail-coverts—Very rich metallic green black. Breast, underpart of body, and thighs—Rich black. Legs—Either yellow, willow, white, olive, or blue. Preference in above order.

The *Standard* colors of the hen are:

Head—Brown. Comb, face, deaf-ear and wattles—Very bright red. Neck—Light yellowish brown, striped with black. Back and shoulder-coverts—Brown. Wing bow, shoulder and coverts—Same color as back, perfectly free from red. Wing primaries and secondaries—Brown. Tail—Dark brown, approaching black. Breast—Deep salmon. Thighs—Ashy brown. Legs—to match those of the cock.—*Poultry World*.

VALUE OF DUCKS.—It is not very often that one, in riding through the country, meets ducks, compared with the frequent appearance of several other kinds of fowl. The reason, probably, is that there is a general feeling that ducks require a great deal of water, and close to the house. Well, this is good, if you have it. Ducks are very clever at capturing all kinds of creeping things in the mud of the streams, and turning them into cash—which flies, we may say, parenthetically, and this is the usual course of development—but a little water will do nearly as well, and they will go grubbing about on-dry land.

Some breeders are very successful in raising ducks with only a tub of water set in the ground.

The best varieties are the Rouen or Aylesbury. The Rouen attains the greater weight of the two, and besides, is content with very slender accommodations in the way of swimming privileges, taking to muddy pools by preference. Do not think of the common duck when you can get these, as they will reach a living weight of twelve pounds to the pair, at but little more cost than the common duck, which weighs only two-thirds as much; and the former are, besides, more quiet, and roam much less. These ducks are full as profitable as hens, and make a pleasant variety in the farm surroundings.—*Poultry World*.

THE FLORIST.

HOW TO ROOT PLANTS SUCCESSFULLY
FROM CTTTINGS.

We take the following from Peter Henderson's "Practical Floriculture":

The "saucer system of propagation" is so called because saucers or plates are used to hold the sand in which the cuttings are placed. This sand is put in to the depth of an inch or so, and the cuttings inserted in it close enough to touch each other; the sand is then watered until it becomes in the condition of mud, and placed on the shelf of the green-house, or in the window-sill of the sitting room or parlor, fully exposed to the sun, and never shaded. But one condition is essential to success, until the cuttings become rooted; *the sand must be kept constantly saturated, and kept in the condition of mud*; if once allowed to dry up, exposed to the sun as they are, the cuttings will quickly wilt, and the whole operation will be defeated. The rules previously laid down for the proper condition of the cuttings are the same as in this case, and those for the temperature nearly so; although by the saucer system, a higher temperature can be maintained without injury, as the cuttings are in reality placed in water and will not droop at the same temperature as if the sand was kept in the regular condition of moisture maintained in the propagating bench. Still the detached slip, until rooted, will not endure a continuation of excessive heat, so that we advise, as we do in the regular method of propagating, that the attempt should not be made to root cuttings in this way, in this latitude, in the month of June, July or August, unless with plants of a tropical nature. When the cuttings are rooted, they should be potted in small pots, and treated carefully by shading and watering for a few days as previously directed. Cuttings rooted in too much shade, and at a high temperature, are drawn up spindling and take months to recover from the injury done by this injudicious treatment. The time required by cuttings to root from five to twenty days, according to the variety, condition of the cuttings, and temperature. Verbenas, Fuchsias, or Heliotropes, put in proper condition and kept without ever being allowed to wilt, will root in an average bottom heat of sixty-five degrees in eight days, while Roses, Pelargoniums or Petunias, will take at least double that time under the same conditions.

Another point of importance, and one too often neglected, is to pot off the cuttings at once when rooted, no matter how small the roots may be; half an inch is a much better length for them to be when potted than two inches, and the operation is much more quickly performed when the roots are short than when long. But the main evils of delaying the potting off of cuttings are, that when left too long the cuttings grow up weak for want of room; the roots which become hard and woody, do not strike freely into the soil, greater care is required in shading and watering after potting, and the plant usually loses its lower leaves, weakening its vitality and exposing it to greater chance of disease. With but few exceptions, cuttings should never be potted into pots exceeding two and a half inches in diameter."

CUCUMBER PICKLES.

The small, long kind are the best for pickling, and those but half grown are nicer than the full-grown. Let them be freshly gathered; pull off the blossoms, but do not rub them; pour over them a strong brine, boiling hot; cover close, and let them stand all night. The next day put your hand in the jar or tub and stir gently, to remove all sand; drain on a sieve, and then dry in a cloth. Make a pickle with the best cider vinegar, adding spice in the following proportions: To each quart of vinegar put half an ounce of whole black pepper, the same of ginger and allspice, and one ounce of mustard-seed. If the flavor is agreeable, add four shallots, and two cloves of garlic, to a gallon of vinegar. When this pickle boils up, throw in the cucumbers, and make them boil as quick as possible three or four minutes. Put them in a jar with the boiled vinegar, and cover closely. When cold, put in a sprig of *dill*, the seed downward, if you like it. Made in this way, they will be tender, crisp and green. If the color is not quite clear enough, pour off the vinegar the next day; boil up, and pour over the cucumbers; cover perfectly tight.

CUCUMBER SALAD.—A lady correspondent of *Hearth and Home* says: "We have just prepared our winter's supply of cucumber salad, and this is how we made it: There were about a dozen ripe 'white spine' cucumbers lying on our vines, and these picked, washed, pared, cut into strips, taking out the seeds, and then, to each dozen cucumbers, which we cut up into pieces like small dice, we put twelve large white onions, chopped; six large green peppers, also chopped; one quarter pound each of black and white mustard seed, and a gill of celery seed. These were all mixed together, a teacup of salt added, and they were then hung up in a cotton bag to drain for twenty-four hours. Then the salad, with enough clear cold vinegar to cover it, was put into stone jars, and fastened nearly air-tight. In six weeks it will be fit for use. It looks as well as it tastes—so white and crisp—and makes an elegant salad for a joint of cold meat. It is not like the Spanish salad that requires a 'councillor for salt, a miser for vinegar, a spendthrift for oil, and a madam to stir it up,' but it is quite as good in its way and not very troublesome to make."

A GOOD TABLE SAUCE.—Take one gallon of tomatoes, wash and simmer in three quarts of water until nearly done. Strain through a sieve. Add two tablespoonfuls of each of these spices, ginger, mace, black pepper, allspice and salt, and one of cayenne pepper. Boil down to one quart. Pour in one half pint best vinegar, and then pass through a hair sieve. Bottle in half pint bottles; cork and seal securely, and keep in a cool place.

MINT CHOW-CHOW FOR ROAST LAMB.—Take one-third onions to two-thirds cucumbers; add spearmint, green peppers and mustard; chop all together, finely; put into a jar and add strong vinegar and salt; work it up, and in a few days it will be fit for use.—*Agriculturist*.

LADIES DEPARTMENT.**CHAT WITH THE LADIES FOR AUGUST.**

BY PATUXENT PLANTER.

"*Maternal Flora, with benignant hand,
Her flowers profusely scatters o'er the land;
These deep the vallies with unnumbered hues,
And far around their fragrant sweets diffuse,
The broad carnations gay and spotted pinks,
Are showered profuse along the river's brink.*"

In most places in our section of the State we have suffered with drought, and unless the watering-pot has been freely used, the flower garden looks shabby, but it ought not to. The culture by fair hands will always make flowers bright and growing, and those hands should never be wanting, if one pair are away or otherwise engaged, another pair surely ought to supply the necessary food, drink and dressing to these sweet and lovely adornments to the homestead. I have lately enjoyed in more than one place in the mountain region of our State, the luxury of homes, surrounded with primeval forest trees; dark evergreens; every variety of shrub from afar and from our own forests; flowers of all kinds, with climbers covering pretty bowers; and where there were fruits mingling with flowers; *Pomona* striving with *Flora* along the widening walks, or beside miniature lakes and sporting fountains, under dense shade and in the bright and burning sunshine; the whole making a picture of rural beauty, peace, and luxurious contentment, that evidenced the happiness of the inmates of those old homesteads. The children reared in such places will never wander afar, or if they do, their hearts will still cling with fond memory to their childhood days and the delights of their old homes. It is in the power of every one of us to have such surroundings. We need not be rich to make our homes attractive and beautiful. We want only taste and inclination. Each one cannot expect a castle and extensive grounds. But however small the cottage and contracted the lot of ground, it can be adorned, and in its way become as pretty and as attractive and dear to the hearts of the young in-dwellers of the cot as the more pretentious surroundings of the stately mansion are to its inmates.

August has come loaded with her fruits,—peaches and plum, apple and quince. All should receive some attention from the careful prodding housekeeper, who desires to provide good things against winter for her family. These different fruits, as also the pears when they ripen next month in plenty, ought to be preserved, canned, dried or converted into jellies, jams or marmalades. To help in work, so profitable, procure good recipes and get a lightning peach parer and stoner, and an apple parer, corer and slicer. If you go into drying extensively get one of these drying houses; they are to be had at reasonable prices (though I do not know where to be found now, I did last year), and will certainly pay for themselves, by their expedition in the operation, in a few days. Do not put off until September, this work; you will soon have tomatoes and corn and other vegetables to be canned or dried, and then with September comes the *pickling* season. So you had better begin and continue the work as the best fruit ripens in its season, and do not procrastinate in filling your cans and jars, like the foolish virgins we have read of and been warned against imitating.

*For the Maryland Farmer.***OUR BEACH TRIP.**

"*The tall Maize
Rolls up long green leaves. The clover droops
Its tender foliage, and declines its bloom,
But in the fierce sunshine, towering trees,
With all their growth of leaves, silent and stern
As if the scorching heat and dazzling light
Were but the element they loved."*

* * * * *

Summer is with us, arrayed in all its gorgeous drapery and flaunting flowers, but its intense heat and burning sun make labor a burden; and "to sit still and see Nature work, is the boon we crave." The press of summer's work is over, and every one feels the need of a few days relaxation, and the delightful exchange of the sultry air of our heated, dusty homes, for the invigorating breezes of the *Atlantic*. A hot July sun shone on a white sandy road, as we joined a merry party, bent on fun and frolic, wending their way towards the desired haven. The roads were well filled with vehicles of every kind, reminding one of our Eastern scenes as the Pilgrims journey to their holy shrines, and the zealous Mahomedan would as soon forego his yearly visit to Mecca, as would the Easternshoreman his annual *beach trip*. After several hours ride, we encamped in a shady grove, enjoying a short rest, and eating our dinners pic-nic fashion; and we had a nice time when we sat down to our feast, the various insects making themselves familiar with our plates. The frogs hopped about us, and now and then a Hugh worm dropped from the overhanging branches, but people always expect these little agreeables when they go pic-nic-ing, and don't mind them much. After dinner, the order was given to resume our march seaward, and away we plunged down the dusty road, lined on either side with sentinel pines, their towering plumes casting a grateful shade around, while here and there stands a grand old oak, whose gnarled trunks and sturdy limbs have braved a century of storms. Not a mountain meets the view. There is not a mountain upon the entire Peninsula, scarcely a hill, especially in these lower counties; but the tall dark wall of evergreens, rising against the sky, produce an effect similar to mountain background. Although most of the forests have fallen before the planter's axe, yet enough has been left to adorn the landscape. The silken blades of Indian corn wave in triumph over the fallen trees, and its golden tassels gives promise of an abundant harvest. Here and there we pass comfortable farm houses, half hid by their clustering trees, with orchards gemmed and glowing with *Pomonas* rudy treasures; but onward we go and soon the blue waters of *Synapuxent* bay are before us, dotted with white sail-boats, plying to and fro from either shore, the sailors as clamorous for passengers as hackmen at a city depot. Embarking in one, we enjoyed a delightful sail, and soon landed at *Scott's Ocean House*, greeted by many merry voices, and gladdened by familiar faces—with the boom of the billows on the beach, saluting our ears, more soul filling and sublime than all the music of the orchestra, for it is the voice of that main so mighty there is grandeur in all that it does; "in its sleep a melody, and in its march a stately psalm." Past experience had warned us just what to expect as to accommodations, and we were prepared to submit without a

murmur, but were agreeably surprised to find many valuable and necessary improvements, such as visitors had not enjoyed heretofore. This delightful summer resort is rapidly becoming one of the watering places on the Atlantic coast, and the safety of the bathing grounds, added to its other attractions, render it a pleasant retreat. The coast presents a line of shore, scarcely merging from the ocean, except here and there huge sand hills, blown up during some warring of the elements. It is a low sandy beach, stretching for miles along the coast of Eastern Maryland, separated from the main by Synapuxent bay, and is traversed by numerous small bays and inlets dividing it into separate islands. There is but one hotel upon the entire beach, and that is a very small one; but accommodations can be had at almost every house, the summer months being the harvest time with the inhabitants. Some parties prefer to rent the houses and cater for themselves, and that is easily done; the bay brings to their very doors every choice aquatic delicacy, and the inhabitants willingly incommod themselves for the accommodation of their visitors, while the exchange of visits, from house to house, is really pleasanter than if all were together in one large hotel. While the frequenters of Cape May and Long Branch are fettered by an endless routine of fashionable follies, here all are as free as the air they breath, and we all enjoy old Ocean's pleasures, in our way, and try for awhile to forget all the world's troubles, determining to

" Let the wide world wag as it will,
We'll be gay and happy still."

We have dancing when we want it, and moonlight strolls in abundance; and we sleep, sleep, sleep, and bathe, bathe, bathe, and play croquet, and cards, and chess; go sailing, and get wet; go crabbing, and get bit, and wander about at our own wayward wills, as free from all artificial restraint as possible. And when we don't wish to bathe, it is a great amusement to stand on the shore and watch the crowd, a more ludicrous scene could not well be imagined. Don't suppose all have bathing suits made to order, by no means. There are every variety of styles, the daintily trimmed dress of the belle, and the jaunty costume of the Eastern Shore dandy, contrasts well with blue fustian suits and homespun dresses of the Islanders, who laugh in ill disguised contempt at the flimsy, wrecked and torn garments of the uninitiated; sometimes a lady faints and that creates quite a commotion for awhile, but she is brought out and laid upon the sand, and the sovereign panacea of a beach party, poured down her throat, no matter what's the ailment. *Whiskey* generally is the remedy; some timid ones are afraid to venture out, and they enjoy the pleasure of a *sand bath* and the company of sea-nettles, and come out in not a very comfortable plight, and don't indulge in that luxury a second time. Others, reckless of danger, float out beyond the breakers. I saw a crowd collected around a lady who was loudly lamenting the loss of her teeth, the relentless waves had washed them from her mouth, and she gnashed her gums in hopeless despair. A fat lady and her two gallants, one a very tall man the other a powerful stout one, presented a solid phalanx, the waves came dashing towards them, and their places were vacant. Alas, "how the mighty are fallen!" and with wobegone visages they scrambled up the shore, one by one, amid the laughter and

jeers of their unsympathizing companions. Occasionally the days' programme is varied by a gallop on a beach pony, or a ride in the ox-cart, the only vehicle the Island can boast of; two sleek fat oxen, attached to the cart, are brought up to the door, and the favored ones looked upon with envy by the rest. *Our party* prepared for a ride one day, as gaily and cheerfully as though it were a gilded chariot. Dismissing the driver, we accepted in his stead a Washington Official and a county Judge; both arrived with huge sticks. For awhile all went "as merry as a marriage bell;" suddenly the oxen started in a full run as they approached the fresh water pond at which they were in the habit of drinking. The banks were high, and part of the company were spilled out going up; our Jesus shouting and belabored the beasts, but in vain; in they went, and out came the rest in the water; fortunately, no one was hurt, but we went back to the house in spite of all our dignified escorts could say, a sadder and a wiser party, determined never to venture again unless the beasts were held in by bit and bridle. But as fine feathers make fine birds, we recovered our spirits as we doffed our dripping garments, and after a refreshing cup of tea were ready to treat it as a good joke, and prepare for a farewell stroll upon the beach, for to-morrow our pleasant party would break. We were all loathe to leave, but home duties were pressing like an incubus upon us; we slowly approached the beach by a circuitous route, picking up shells and bright colored pebbles as mementoes of our trip. Climbing a huge sand mountain, which for a while obscured all else from view until we reached the top, below us lay the sea, more beautiful than fancy had pictured it, the smooth white beach stretching for miles away; the sounding waves, that gathered and foamed, broke upon the silent shore; the sun was going down in its beautiful ocean bed, and we watched the waves advancing and receding without a thought of home. Said a friend, "There was only a sand hill between us and all this glory;" but the sand hill was enough, some people never climbed there in all their lives. The sun sank entirely, leaving only a trail of flame across the heavens, "the waters grew, gray and purple in the shadows;" the wind rose and threw long curls of seaweed upon the beach, and the distant white sails look so "weird and phantom-like," the sea looked even more beautiful as the full moon sailed through the quiet heavens, silverying everything with her radiance; "the waves, like a glittering arrow darting in and out, with such sudden motion never disturbing in their course, as they quivered, and flashed, and tossed their silvery spray at our feet."

" Roll on, thou deep and dark blue ocean, roll!
Ten thousand fleets sweep over thee in vain;
Man marks the earth with ruin, his control
Stops with the shore; upon the watery plain
The wrecks are all thy deeds, nor doth remain
A shadow of man's ravages, save his own,
When, for a moment, like a drop of rain
He sinks into thy depths, with bubbling groan
Without a grave, unknelled, unconfined and un-
known."

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" Farewell; a word that must be, and hath been
A sound that makes us linger; yet—Farewell!"

WICOMICO.

Salisbury, July 15th.

Mr. J. H. JOHNSTON, Great Western Gun Works, 179 Smithfield Street, Pittsburgh, Penn., whose advertisement has been published in this paper during the past year, is, we have reason to believe, reliable and trustworthy in all his dealings. An annoying error has appeared in his advertisement in the price of Double Shot Guns. The minimum price of these goods should have been published at \$8, instead of \$3. We take this method of calling attention to the mistake, and to express our confidence in the firm,